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COOPERATIVE MARKETING of TURKEYS

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U. S. DEPARTMENT OF AGRICULTURE

by Henry W. Bradford
and John J. Scanlan

FCS Circular 23

Farmer Cooperative Service
U. S. Department of Agriculture

THE Farmer Cooperative Service conducts research studies and service activities of assistance to farmers in connection with cooperatives engaged in marketing farm products, purchasing farm supplies, and supplying business services. The work of the Service relates to problems of management, organization, policies, merchandising, product quality, costs, efficiency, financing, and membership.

The Service publishes the results of such studies, confers and advises with officials of farmer cooperatives; and works with educational agencies, cooperatives, and others in the dissemination of information relating to cooperative principles and practices.

Joseph G. Knapp
Administrator
Farmer Cooperative Service
U. S. Department of Agriculture

October 1957

This study was conducted under authority of the Agricultural Marketing Act of 1946 (RMA Title II).

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SUMMARY

TURKEY marketing cooperatives have operated successfully and advantageously for many turkey growers and have made important contributions to the general improvement of turkey production and marketing. They have continued to grow in effectiveness and have consistently been in the forefront in adopting improved processing and marketing methods. They now serve practically every important producing section of the United States.

Some of their major accomplishments have been in increasing their processing efficiency; marketing more effectively; paying growers equitably and thus giving them greater incentive to produce quality birds; performing production and related services for growers at cost; and providing growers with turkey insurance, information, low-cost packing materials and transportation, and other benefits.

Turkeys were first marketed cooperatively in 1918. The earliest associations, known as "pools," were small, informal groups formed to market one or two carloads of turkeys in the fall. The next step was organization of State or district pools. These, in turn, made up the membership of the first regional federation in 1930.

The number of turkey marketing cooperatives grew rapidly from 1918 to 1936, when the total reached 115. After 1936, shifts in production areas, concentration of production, and a pronounced trend toward ready-to-cook processing in large volumes caused many small associations to cease business or to merge with others.

Only 30 turkey marketing cooperatives, including 1 regional federation, were operating in 1956, according to a survey by Farmer Cooperative Service at that time. However, these 30 cooperatives handled 154 million pounds of turkeys—4 times the volume of the 115 associations in 1936. The volume handled by the cooperatives in 1956 represented 16 percent of the total United States production, compared with 12 percent 20 years earlier.

Minnesota, California, Utah, and Wisconsin were the leading States in cooperative turkey marketing in 1956. Cooperatives in these 4 States marketed 104.5 million pounds. Those in Utah and Wisconsin sold more than 50 percent of the turkeys produced in those States.

Most of the larger turkey cooperatives are located in the western part of the United States, where there are large surpluses because of heavy turkey production and relatively sparse human population.

Cooperatives marketing turkeys vary widely in type, organizational

setup, and operating methods. The four types handling turkeys are local turkey, local poultry, and centralized poultry and dairy associations, and federations.

In 1956, 18 local turkey associations marketed an average of 6.2 million pounds; 4 centralized poultry and 1 dairy association, 7.5 million pounds; and 7 local poultry associations, 642,000 pounds.

Of 20 associations surveyed, 8 were organized on a stock and 12 on a nonstock basis. Six of the nine using marketing agreements were in the Pacific States. A new type penalty clause now used for violation of marketing agreements is cancellation of the agreement and membership in the cooperative.

Boards of directors of the 20 associations ranged in number from 5 to 16; more than half had 7 directors. Directors served 3-year terms at 15 cooperatives and either 2-year or 1-year terms at the other 5. Only 2 associations limited the number of consecutive terms a director could serve.

Twenty of the largest turkey cooperatives had collected more than $6 million for capital during their years of operation. Nearly $2 million of this had been returned to growers in cash, and the balance represented the equity of producers in their associations.

The principal methods used to build and maintain capital were retaining operating savings, taking a capital deduction or retain per unit of product handled, and selling common and preferred stock. A small amount of capital was raised from membership fees.

Cooperatives used one or more of four bases to market turkeys for their members. These were pool, consignment, grower control basis, and full-cash payment at time of delivery. In recent years cooperatives have used the full-cash payment method more and the pool method less than formerly.

Since their beginning, many cooperatives have consistently paid growers according to quality and other price-determining factors. During 1955–56, 19 associations paid growers on a ready-to-cook basis, 2 based payments on live weight, and 1 on New York dressed basis. Payments based on ready-to-cook weights and grades reward producers directly in relation to quality and serve as an incentive to them to produce high quality turkeys.

Of the 30 turkey associations in 1956, 14 were members of Norbest Turkey Growers Association, Salt Lake City, Utah. Three owned and operated their own sales agencies in terminal markets, and the remaining 13 sold their turkeys directly to chain stores, wholesalers, and other buyers.

Ready-to-cook processing, including quick freezing, requires costly facilities. In 1955–56, the value of the physical facilities of 11 associations averaged $246,000.

The capacity per 8-hour day at 25 cooperative plants averaged either 3,900 heavy toms, 5,400 heavy hens, 6,800 mature light breeds, or 7,500 fryer-roaster turkeys. Volume processed in a 24-hour period was limited at most plants by their ice-cooling or quick-freezing capacity. This averaged 87,000 pounds per plant which is equivalent to 5,240 birds at 16.6 pounds each.

Because of large investments in these plants, associations need to operate at full or nearly full capacity during the relatively short processing season to keep fixed unit costs at a minimum.

Costs of processing ready-to-cook

turkeys at 5 associations in 1955–56 averaged 6.68 cents a pound ready-to-cook weight. Of this amount, wages and salaries were 2.52 cents, packing supplies 1.89 cents, and all other costs 2.27 cents a pound.

Cooperative Marketing of Turkeys

By Henry W. Bradford
and John J. Scanlan
Poultry Branch, Marketing Division

PRODUCERS' cooperatives have been gaining in importance in turkey marketing during the past 40 years. By processing large volumes efficiently and marketing them effectively, these cooperatives have established themselves firmly in the industry.

Their progressive development has been the result of several factors, some internal and others external. As marketing organizations they have been in the forefront in adjusting their internal setup, operations, and policies to meet changes in the industry. Among the external factors which have affected their development have been major changes in turkey production—increases in production, concentration of production in relatively small areas, and fewer growers producing larger flocks.

This circular deals with the early marketing of turkeys by producers through their own agencies. It also reports on a survey by Farmer Cooperative Service on the status of cooperative turkey marketing in 1956, and the organizational setup, operating methods and policies, cost of operating, and some of the accomplishments of turkey cooperatives.

This report will be followed by a study of the cost and labor efficiency of selected turkey handling associations. In the later study, costs per pound and labor output per man-hour will be determined for each of the marketing stages such as assembling, dressing, eviscerating, cooling, packaging, and freezing.

Note.—The authors wish to express their gratitude to officials of the turkey marketing cooperatives for their cooperation in supplying information and data on their operations and for being otherwise helpful in the study.

Accomplishments

FARMER cooperatives now market about 16 percent of the turkeys sold. They have grown in volume handled since their inception in 1918; in 1956, 30 associations handled a total of 154 million pounds—an average of 5.1 million pounds each.

Cooperatives in the West North Central and Western regions handle more of the marketings than those in other regions. Those in 4 States—Minnesota, California, Utah, and Wisconsin—market 68 percent of the entire cooperative volume.

Cooperatives marketing turkeys have many accomplishments to their credit, both as farmer marketing organizations and through their contributions to the general improvement in turkey production and marketing methods.

Some of their major accomplishments include: (1) increasing processing efficiency, (2) marketing more effectively, (3) paying growers equitably, (4) performing production and related services to growers at cost, and (5) helping to develop a turkey insurance program for producers.

Processing Efficiency

One of the major achievements of turkey cooperatives is their increased processing and marketing efficiency. They have been progressive in improving their dressing plants and in increasing the size of processing and freezing facilities. By the cooperative processing and marketing of large volumes, they have contributed to the reduction ot the price spread between the producer and the consumer. Since they operate at cost, all savings from operations belong to the producers.

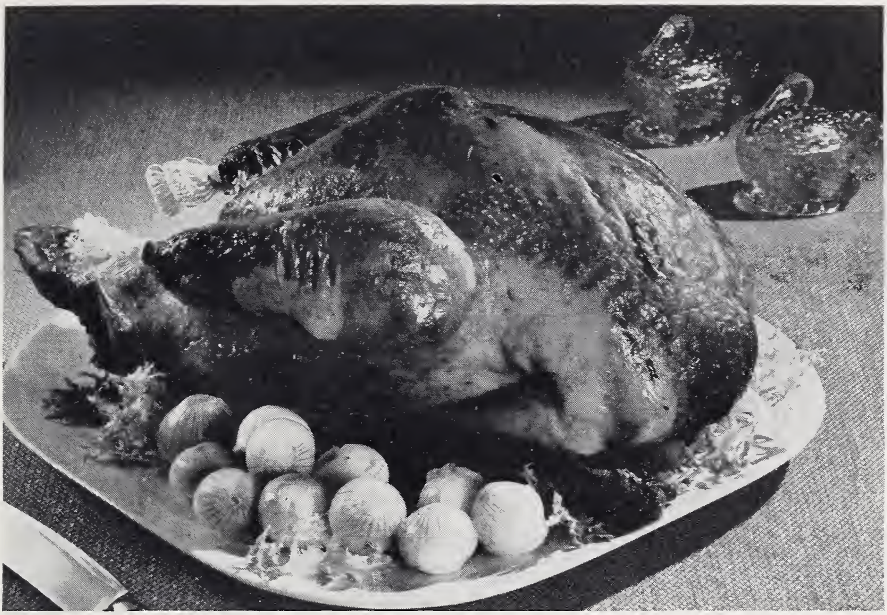
Effective Marketing

More orderly and effective marketing is another major accomplishment of these cooperatives. They were among the first organizations to sell turkeys according to U. S. Classes, Standards, and Grades for Dressed Turkeys. They were among the first marketers of turkeys to sell in uniform and attractive packages. By adopting brand names for their products, consumer advertising, and other consumer appeal methods, they have helped promote and increase the consumption of turkeys on a year-round basis. Several associations have experimented and pioneered in merchandising cut-up, half, and canned turkey, and boned turkey rolls.

By uniting their efforts through sales federations, they have done much to eliminate harmful competition among cooperatives in terminal markets and have contributed in stabilizing turkey prices. Through their sales agencies they have regulated the flow of their turkeys to market by storage and other operations. They have broadened their market outlets and thereby increased the bargaining power of their members.

Equitable Basis of Payment

From the start, most turkey cooperatives have paid growers on a fair and equitable basis. At present they sell turkeys according to the quality, dressed weight, and sex of individual birds and pay the growers accordingly. Producers, by receiving payment based on prices for individual turkeys, have been encouraged to produce better quality. This incentive basis of pro-



Cooperatives have helped increase the year-round consumption of turkeys by effective merchandising methods.

ducer payment has been beneficial not only to producers but also to consumers because of the better birds produced.

Integrated Services

A few of the larger poultry associations have taken the lead in the industry in providing turkey growers with virtually all needed services in their growing and marketing programs. These include furnishing, or making available poults, feed, medications, production equipment, production finance, and processing and marketing services. A few specialized turkey cooperatives handle feed and render other services in addition to marketing.

By providing these services at cost, cooperatives have helped their members reduce both production and marketing expenses. As a result, other turkey producers in the areas benefit.

Turkey Insurance

Helping to make turkey insurance available to growers since 1940 is another accomplishment of the turkey cooperatives. After the Armistice Day storm of November 11, 1940, in several North Central States, and another storm in early November 1943, many insurance companies discontinued coverage on turkeys.

However, a farmers' mutual insurance company, with the endorsement of the National Turkey Federation, has continued to insure against losses from fire and storm. Premium rates are based on past experience in losses. The policy requires growers to take proper precautions against storm and other hazards to prevent losses. The coverage is as broad and equitable as feasible.

By handling their own transportation, some of these cooperatives have lowered marketing costs.

Other Benefits

Cooperatives have helped turkey producers in several other ways. Through federated purchasing in large volumes, the member associations have been able to obtain packing materials at reduced prices. Through their joint efforts they have lowered transportation costs by helping to establish lower freight rates and by reducing the tare weight of shipping boxes. They have kept in close touch with legislation and combined their efforts to prevent regulations which might adversely affect the industry. Some publish market and other information and carry on other activities beneficial to the turkey growers.

Changes in Turkey Marketing

METHODS of marketing turkeys have changed gradually as production and size of individual flocks have increased. First, producers traded turkeys for merchandise at country stores. Then they began selling to local buyers for cash. The next step was consigning to commission firms in large cities, or selling directly to large produce dealers.

Early Marketing

At first the growers sold turkeys live to local merchants, who dressed them before selling. This practice was not satisfactory because merchants preferred to buy dressed turkeys. Producers then began dressing their turkeys at the farm. This farm processing meant less risk to the buyers, as most growers, by guarding against damage during dressing, did a more careful job.

As size of flocks increased, growers looked for buyers who would take larger quantities than individual stores were willing to purchase. This led to selling to local wholesale buyers, a method which also had drawbacks. The turkey crop is seasonal, and local buyers often did not have adequate financial resources or physical equipment to handle it properly. During the late 1920's and early 1930's before plant refrigeration became widespread, turkeys had to be marketed immediately after dressing, especially in the warmer areas. This often put the grower at a disadvantage. Furthermore, many growers were not satisfied with prices and grades.

A few producers sold their birds from house to house at satisfactory prices. However, this method of selling was practicable only for producers who raised a relatively small number of birds and were situated near consumer markets.

As other outlets failed to meet their needs, growers began consigning their turkeys to commission merchants or selling them to produce dealers in cities such as Chicago, Omaha, and St. Louis. Many producers found these satisfactory. Others did not.

Producers in time became aware of a need for better sales outlets for their turkeys. Their experiences led them to consider doing their own marketing in conjunction with their fellow-producers. Thus, marketing cooperatives were the eventual outgrowth of producers' desire to improve existing marketing methods, practices, and agencies.

Before turkey cooperatives were organized, growers sold turkeys live to local merchants.

Evolution of Cooperatives, 1918–56

The Clay County Farm Bureau, West Point, Miss., pioneered in marketing turkeys cooperatively when it handled a shipment of live turkeys in 1918. Another farmer cooperative entered the turkey marketing field in 1919, 1 more in 1920, and 5 in 1921. These 8 associations were located in a line from north to south—1 in Minnesota, 2 in Missouri, and 5 in Mississippi.

The following year, 1922, cooperative turkey marketing spread to the West with associations in Wyoming, Colorado, and Montana. A third was started in Missouri.

These early turkey marketing organizations with the year of initial operation were as follows:

Name	*Year first marketed turkeys*
Clay County Farm Bureau, West Point, Miss	1918
Farmers Cooperative Creamery Company, Pelican Rapids, Minn	1919
Producers Produce Company, Springfield, Mo	1920
Loundes County Farm Bureau, Columbus, Miss	1921
Noxubee County Farm Bureau, Macon, Miss	1921
Kember County Farm Bureau, Dekalb, Miss	1921
Oktibbeha County Farm Bureau, Starksville, Miss	1921
Producers Produce Company, Shelbina, Mo	1921
Big Horn Marketing Association, Basin, Wyo	1922
Holbrook Turkey Growers, Cheraw, Colo	1922
Pondera Poultry Producers, Conrad, Mont	1922
Producers Produce Company, Sedalia, Mo	1922

By 1923, 8 more associations were marketing turkeys cooperatively. Four of the 8 were in Montana and 1 each in Colorado, Idaho, Utah, and Texas. This made a total of 20.

The number of farmer cooperatives handling turkeys grew steadily until 1936 when 115 were in operation. Then in 1936, a year of serious overproduction, the number commenced a steady and rapid decline. By 1956 only 30 cooperatives were handling turkeys.

The number of cooperatives operating each year from 1918 to 1956 was as follows:

Year	*Number*
1918	1
1919	2
1920	3
1921	8
1922	12
1923	20
1924	26
1925	35
1926	37
1927	41
1928	53
1929	64
1930	72
1931	82
1932	92
1933	92
1934	98
1935	101
1936	115
1937	109
1938	103
1939	102
1940	100
1941	100
1942	100
1943	96
1944	92
1945	88
1946	83
1947	80
1948	71
1949	66
1950	62
1951	57
1952	53
1953	44
1944	39
1955	31
1956	30

This decline in number of associations does not indicate a decline in the importance of cooperatives in turkey marketing. It was due to basic changes in the industry.

Turkey Pools

Most of the earliest turkey marketing organizations, called "pools," were small, informal, temporary community groups formed to market one or two carloads of turkeys in the fall.[1] Members of these pools usually killed and dressed their own turkeys on the farms and delivered them for sale at a certain point on a specified day. Services rendered by the pool consisted primarily of assembling, packing, and selling. Buyers usually graded the turkeys at delivery points and supervised the packing to meet their individual market requirements.

Many early pools did not incorporate when they first organized. They operated only a few weeks of each year, rather than on a year round basis, and handled only a small volume. A manager, usually a leading producer, was hired for the short fall marketing period to superintend assembling and selling operations.

A few associations, which handled a relatively large volume of turkeys, employed a manager on a yearly basis. This enabled the association to give other services than marketing—production assistance and membership relations services—to name two.

The unique characteristic of the pools was that all producers were treated alike. Each shared sales returns and expenses in proportion to the volume and quality of turkeys he shipped. Usually, there were two pools a season—Thanksgiving and Christmas. Some associations, however, had a late or "freezer" pool.

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[1] Sprague, G. W. cooperative marketing of turkeys in the northwest. U. S. Dept. of Agric. October 1929.

Gardner, Chastina. beginnings of cooperative egg and poultry marketing. U. S. Dept. of Agric. March 1930.

The pooled turkeys were generally offered for sale on a bid basis to a number of buyers who were given advance information regarding the anticipated volume. Buyers had to submit their bids some time in advance of Thanksgiving and Christmas and to play safe often based them on a lower market.

The early associations had many difficulties. One of the most common was nonsupport from members. Few pools had adequate capital to conduct their business properly and this often handicapped the manager in selling. Usually only a few bids were received on a pool; if these were not satisfactory, the manager had difficulty finding other outlets. Not being able to hold the turkeys, he had to sell them immediately regardless of price.

Associations that had sufficient funds could, if local prices were not satisfactory, ship the birds to market and sell them after arrival. When this was done, the grower was given a partial payment at delivery time, but final settlement was withheld until the pooled turkeys were sold. Some cooperatives recognized this need for capital and laid aside a fraction of a cent per pound on all turkeys sold to accumulate funds and thus strengthen their sales organization.

Although the pools were an improvement over individual marketing, they were not basically strong organizations. Growers soon realized the weak position of the pools and began to consider coordination of sales as a method of gaining marketing strength.

Federations

Pool leaders were interested in working together on common problems—particularly sales. This led to the organization of four sales federations in the 1930's.

The first, the Norbest Turkey Growers Association, with headquarters at Salt Lake City, Utah,[2] was organized in 1930 to handle turkeys for about 45 associations in the Northwest. The White Mountain Turkey Marketing Association, Denver, was organized in 1933 to market turkeys from Colorado pools. The Southwestern Turkey Growers Association, Plainview, Tex., was started in 1937 to market for pools in Texas and Oklahoma, and the Great Northern Turkey Marketing Cooperative, Inc., Jamestown, N. Dak., to serve pools located in several West North Central States.

Organization of sales federations proved a significant step forward in cooperative turkey marketing. Instead of selling turkeys on a bid basis as the pools had done, these federations sold to large wholesale buyers through commission firms, or established their own sales agencies in important markets of the country.

Thus, through the medium of regional federations, pools provided themselves not only with dependable marketing agencies but also with an opportunity to obtain packing and other supplies at considerable savings because of volume purchases. The federations also eliminated harmful competition among pools; standardized grading and packing; reduced marketing costs by handling larger volumes; paid growers more in relation to the sex, grade, and size of birds; obtained current and reliable market information; maintained terminal market sales outlets and contacts; and performed other services helpful to member associations and to their producers.

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[2] Originally called Northwestern Turkey Growers Association.

The 4 federations originally marketed turkeys for the more than 100 local cooperatives in the West and West North Central regions. However, only 1, Norbest Turkey Growers Association, was still operating in 1956. The other 3 ceased because of decreased turkey production in the procurement areas of their member associations.

Changes in Production

MAJOR changes in turkey production during the past quarter-century have had important effects on cooperative marketing.

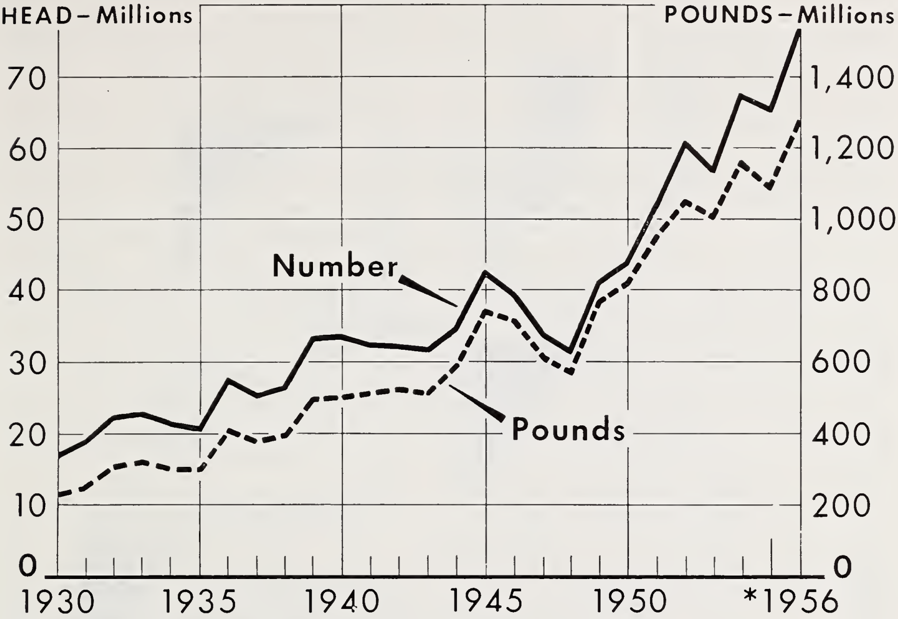
Increases in total production and in size of flocks, decreases in number of growers, concentration of production, and geographic shifts in production have enabled some cooperatives to process and market relatively large volumes of turkeys and establish themselves firmly in the industry.

Some of these shifts and changes in production have hindered the progress of other associations or caused them to cease handling turkeys entirely. The latter is particularly true in some of the Mountain, West North Central, and South Central States.

Following is a brief review of the turkey production situation and pertinent developments in various States and sections of the United States. It provides background information for the discussion of the operations of turkey marketing cooperatives. More details on production are in the appendix.

Turkey production has increased greatly since 1930.

Figure 1.—Number and pounds of turkeys produced, United States, 1930–56.



*Figures for 1956 are preliminary.

Increase and Concentration

Turkey production more than quadrupled from 1930 to 1956—from 17 million to 76.7 million head (appendix table 1 and fig. 1). Most of this increase took place in the past 8 years. During the 19-year period from 1930 through 1948, the number produced increased by only 14 million head, but during the 8 years, 1949–56, it increased 45 million head.

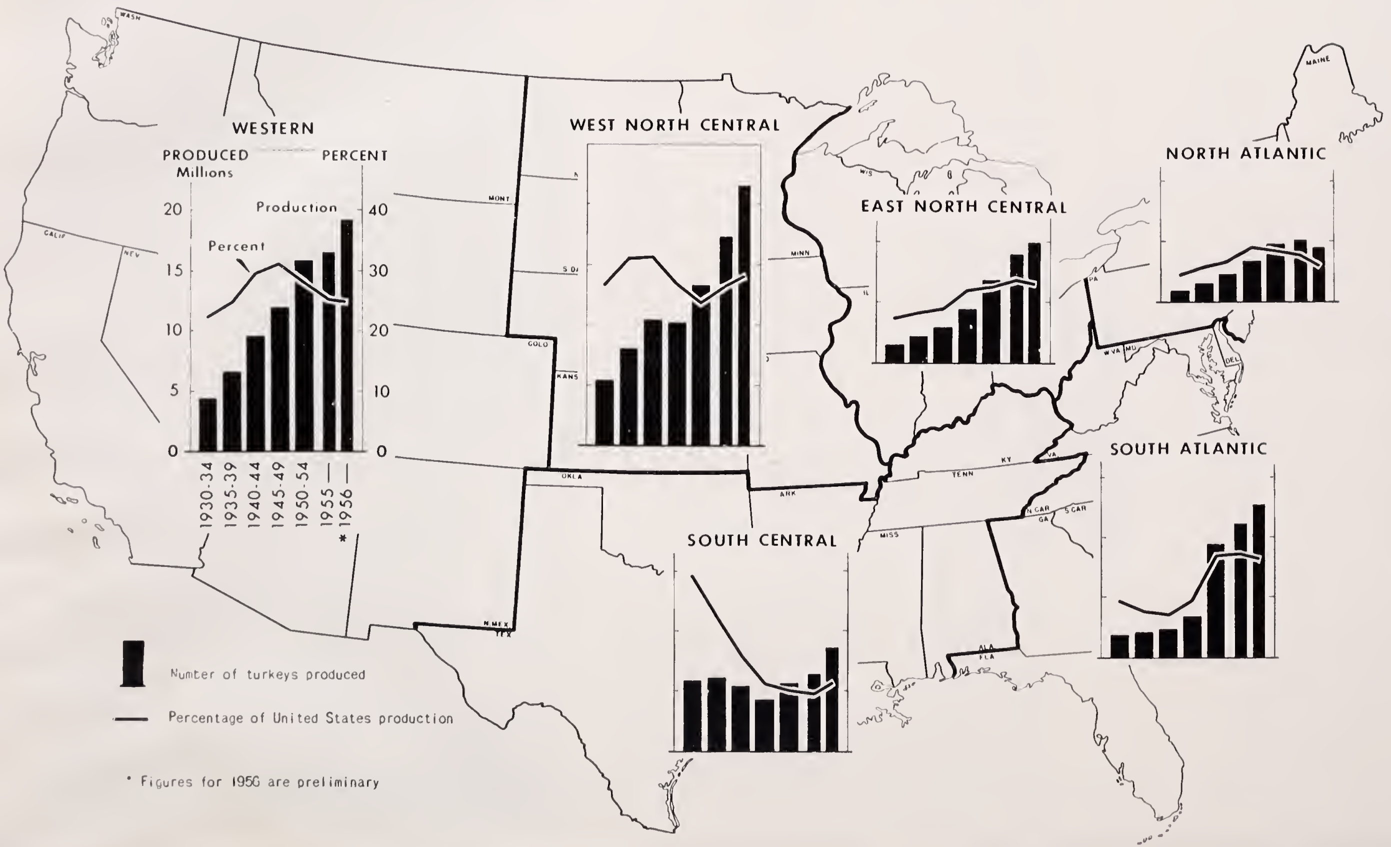
Figure 1 shows also the number of pounds of turkeys produced from 1930–56. The number of pounds paralleled closely the number of turkeys until about 1941, when the average size of turkeys showed a substantial increase. After 1949, the average size decreased; hence the parallel between numbers and pounds is not as close.

All sections of the United States show increased turkey production since 1930. Increases have been major in some areas, minor in others. Figure 2 shows production for each geographic region by 5-year periods from 1930–34 to 1950–54, and for 1955 and 1956. The percentage for each region in terms of United States production is also shown for these periods. (See also appendix table 2.)

In 1956, one-fourth of the States produced nearly three-fourths of the turkeys, and one-half of the States produced 92 percent of the entire crop.

The important surplus areas in 1955 were west of the Mississippi River (fig. 3), where 22 States produced a surplus of 248 million pounds. Four States—Minnesota, California, Iowa, and Utah—accounted for 96 percent of this total. With a few exceptions, Virginia in particular, States east of the Mississippi produced fewer turkeys than they consumed.

Figure 2.—Turkeys produced and percentage of United States production by regions, average of 5-year periods, 1930–54 and in 1955 and 1956.



Concentration of production in relatively small areas has encouraged the development of turkey cooperatives, especially in the West. Of the 30 cooperatives marketing turkeys in 1956, 18 west of the Mississippi marketed 122.5 million pounds or 80 percent of the total cooperative tonnage for the year.

Concentration of production also has enabled some cooperatives to build large plants and to expand their operations. The 11 largest turkey cooperatives processed about 10 million pounds each in 1956. This was equivalent to 602,410 turkeys at the United States average weight of 16.6 pounds each.

Flocks and Growers

An increase in size of flocks has been an important factor in the development of turkey marketing cooperatives. Between 1929 and 1954, the average flock size increased 14-fold, from 26 to 370 turkeys (fig. 4).[3]

Twenty-one cooperatives marketing turkeys in 1956 had an average of 132 members, and each of these growers produced an average of about 3,200 turkeys during that year. This number is nearly 9 times as many as the average flock size for the Nation in 1954—370 turkeys.

While both turkey production and size of flocks have increased, the number of growers has decreased. Figure 4 shows the trends in the number of farms raising turkeys and in the number of turkeys raised per farm. The number of farms decreased sharply, from 637,843 in 1929 to only 162,244 in 1949 (appendix table 3). During the next 5 years ending in 1954, the number of farms increased slightly to 169,807, only 27 percent

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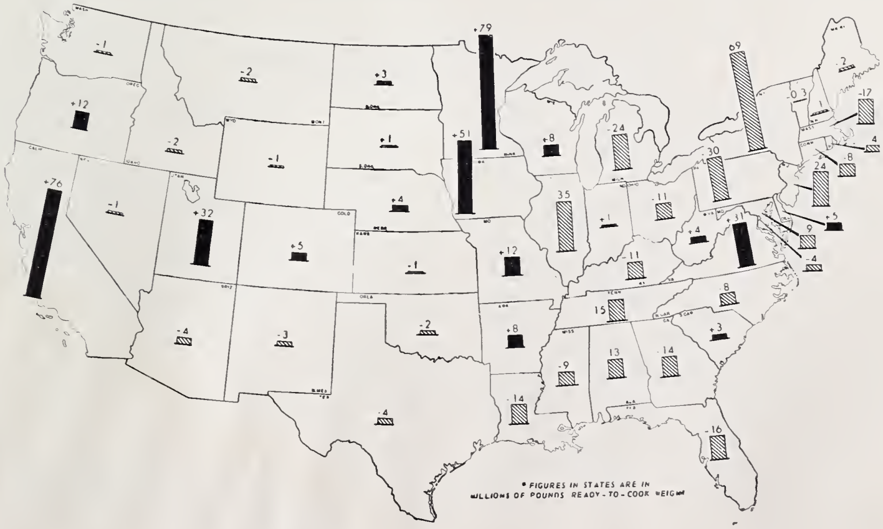
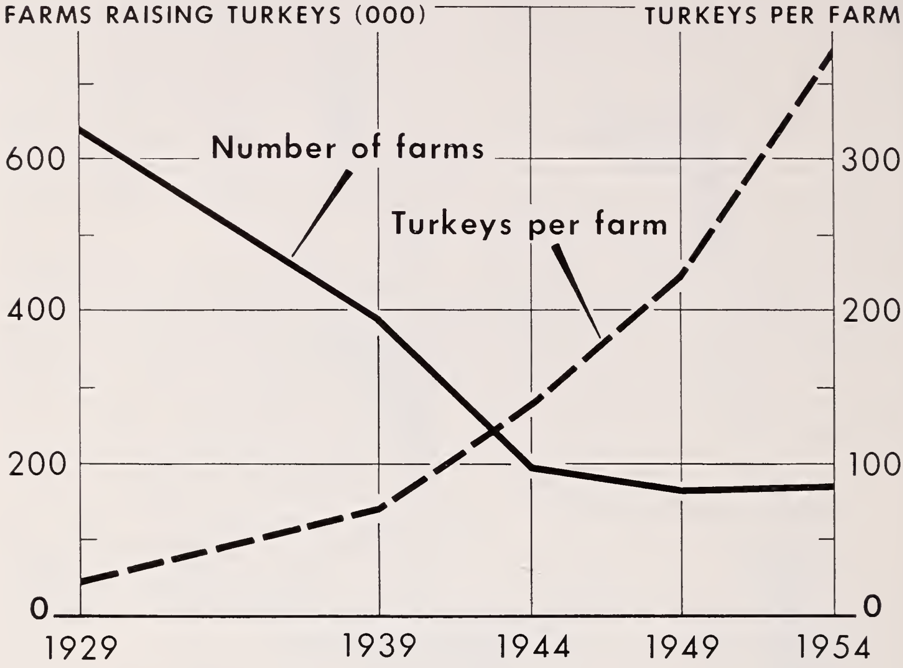
[3] Figures calculated from U. S. Census of Agriculture for applicable years.

Figure 3.—Surpluses and shortages of turkey production, 1955*.



* FIGURES IN STATES ARE IN MILLIONS OF POUNDS READY-TO-COOK WEIGHT

Figure 4.—Comparison of number of farms raising turkeys and number raised per farm, 1929–54.



of the 1929 number. The trend toward larger flocks and greater specialization in production apparently will continue.

However, in the South Central region these trends have not developed as rapidly as in other regions. Number of farms raising turkeys has remained relatively high and the average flock size relatively small.

Development of Cooperatives

THE 30 cooperatives handling turkeys in 1956 were scattered widely throughout the Nation—from California to Maine and from Washington to North Carolina (fig. 5). However, they were concentrated in the 2 heaviest turkey-producing States—with 4 in California and 5 in Minnesota. Three other States each had 2 cooperatives handling turkeys, and 15 States had 1 association each.[4]

Location

Table 1 shows the number of cooperatives handling turkeys by geographic regions, from 1936–56. During the earlier years, the associations were most numerous, in the Western and West North Central regions, with a sizeable number in the South Central. Of the 115 cooperatives in 1936, 109 were in these 3 regions.

During the 21-year period, 1936–56, the number in the Western region decreased from 60 to 9, in the West North Central from 40 to 9, and in the South Central from 9 to none. The number in the three Eastern regions (North Atlantic, South Atlantic, and East North Central) rose slightly during these years.

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[4] Not including the Norbest Turkey Growers Association, a sales federation located in Utah.

The number of cooperatives handling turkeys changed considerably in some States between 1936 and 1956 (appendix table 4). For example, Montana had 22 turkey pools in 1936 but none by 1952. The decrease in Colorado was from 13 in 1936 to 1 in 1954.

Twelve States—10 Western and Nebraska and Kansas—had 73 turkey cooperatives in 1936, but only 10 by 1956. The 63 that ceased operating were all local turkey cooperatives or "pools." In contrast, the decrease from 12 to 5 associations in Minnesota and 7 to none in North Dakota was primarily due to local creamery associations ceasing to handle turkeys.

Cooperatives obtained turkeys from most of the heavy-producing sections of the Nation. The procurement area of each association in 1956 and the number of turkeys raised in 1954 are shown in figure 6. The number raised in 1956 was greater than in 1954, but the concentration of production was similar. In 1956, 4 States—Minnesota, California, Utah, and Wisconsin—furnished 68 percent of the cooperative tonnage. Another 6 States provided 26 percent, making a total of 94 percent from 10 States.

Ten other States marketed some turkeys cooperatively, but the volumes were relatively small. Nine of these 10 States were in the Eastern area, from Illinois to the East Coast.

Number of Producer-Members

Turkey cooperatives in total have a relatively small number of members. This is because turkey flocks are much larger than formerly, the number of growers has greatly decreased, and some areas of the

Figure 5.—Location and type of farmer cooperatives handling turkeys, 1956.

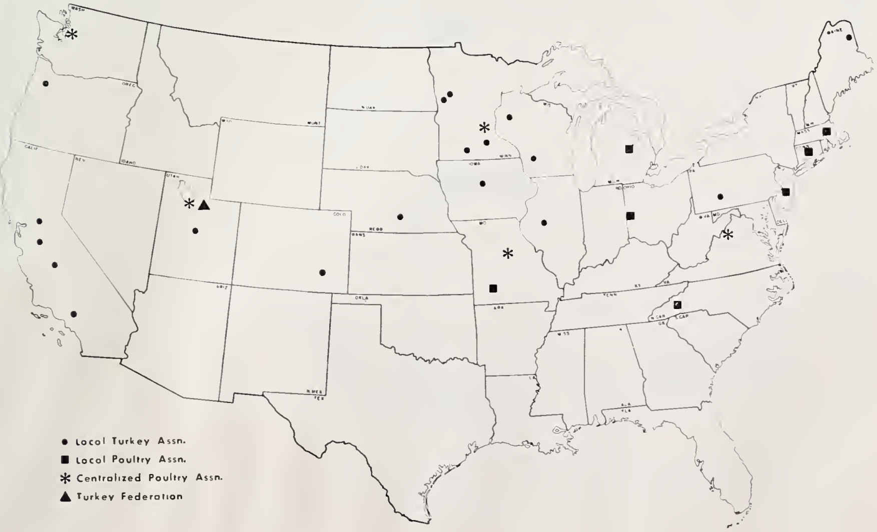
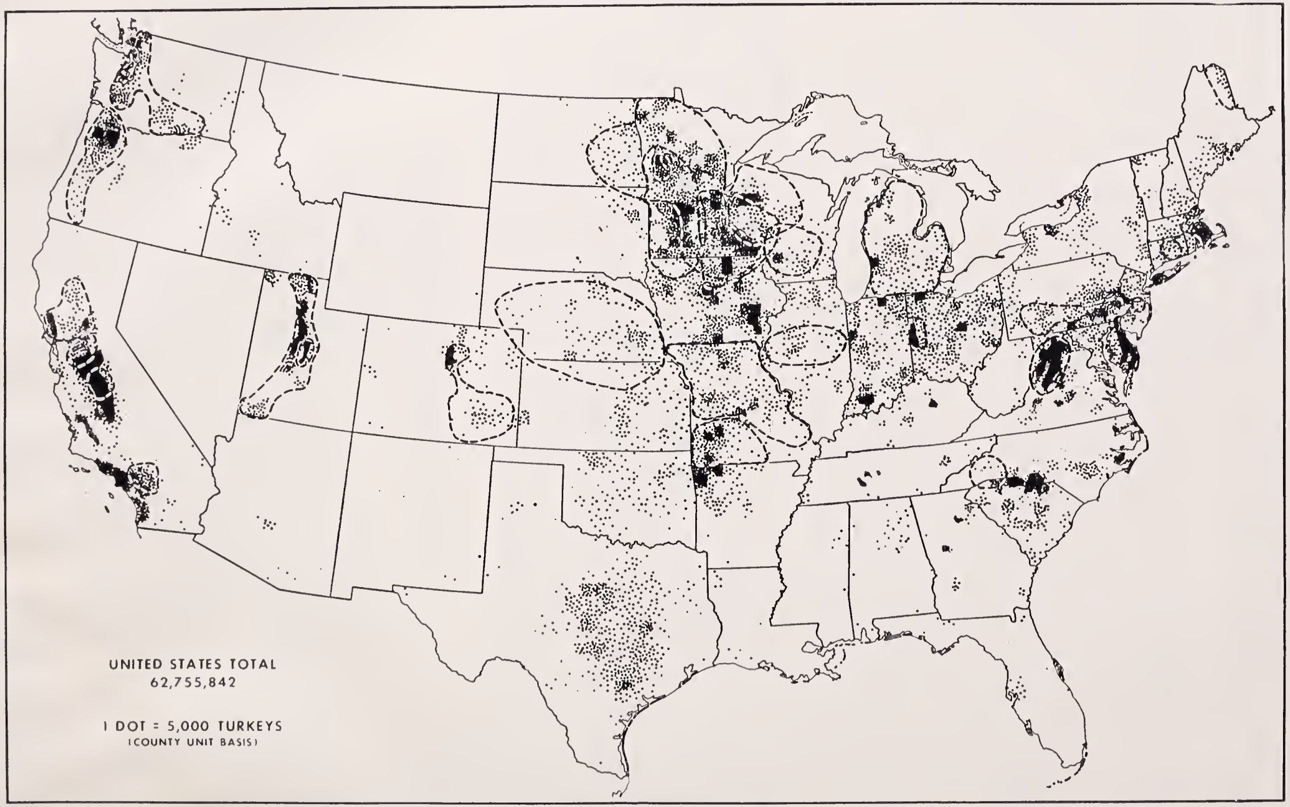


Figure 6.—Turkeys raised, 1954, and procurement areas of turkey cooperatives, 1956.



* Map showing turkeys raised obtained from Bureau of the Census, U S Department of Commerce

Nation are not served by turkey associations.

Table 2 shows that 21 turkey cooperatives in 1956–57 had a total of only 2,768 members, or an average of 132 per association. These growers sold 147 million pounds of turkeys through cooperatives during that season. This amounts to 95 percent of the total tonnage handled by all 30 cooperatives.

About half of the associations, 10 of the 21, had less than 100 turkey members each, 5 had between 125 and 150 members, and 3 had 200 members or more.

Volume Handled

The volume of turkeys handled by cooperatives has kept pace with the increase in production.

The total volume handled increased from about 35 million pounds in 1936 to nearly 154 million pounds in 1956 (fig. 7). There was a sharp increase in volume during the years 1954–56. During the 20-year period the number of associations decreased from 115 to 30.

In 1936, the 115 cooperatives handled an average of 302,000 pounds. The 30 associations in 1956 handled an average of 5.1 million pounds, or 17 times as much per association.

Associations in the Western region handled considerably more than half of all turkeys marketed cooperatively each year from 1936 through 1952. From 1952–56, how-

Table 1.—Number of farmer cooperatives marketing turkeys, by regions and the United States, 1936–56 [1]

Year	North Atlantic	East North Central	West North Central	South Atlantic	South Central	Western	United States
			Number				
1936	4	1	40	1	9	60	115
1937	4	1	39	1	12	52	109
1938	4	1	37	1	10	50	103
1939	4	2	38	1	7	50	102
1940	4	2	40	2	6	46	100
1941	4	2	42	2	6	44	100
1942	4	2	42	1	8	43	100
1943	4	3	38	1	7	43	96
1944	4	3	37	2	5	41	92
1945	4	4	34	4	5	37	88
1946	6	5	33	4	5	30	83
1947	5	5	32	4	4	30	80
1948	6	6	30	2	3	24	71
1949	5	6	27	2	1	25	66
1950	5	6	25	2	1	23	62
1951	5	5	24	2	1	20	57
1952	6	5	21	2	1	18	53
1953	6	5	16	2	1	14	44
1954	6	6	13	2	-------	12	39
1955	6	5	9	2	-------	9	31
1956	5	5	9	2	-------	9	30

[1] Not including turkey sales federations.

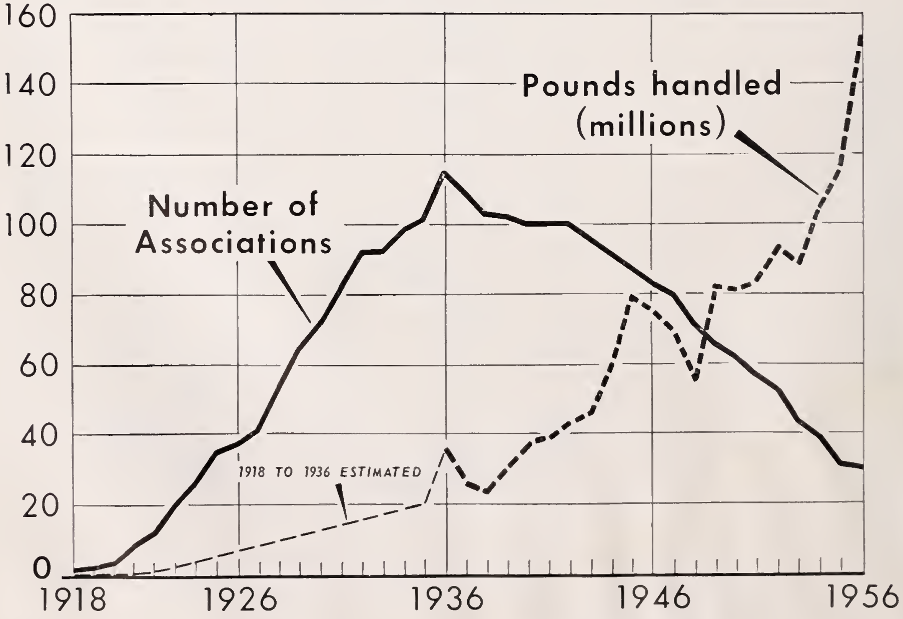
Table 2.—Total and average number of members of 21 turkey cooperatives, 1956–57

Number of members	Number of associations involved	Total members	Average number of members
Less than 25	2	22	11
25–49	3	96	32
50–74	3	191	64
75–99	2	189	95
100–124	1	100	100
125–149	5	660	132
150–174	1	160	160
175–199	1	180	180
200 or more	3	1, 170	390
Total or average	21	2, 768	132

ever, they handled an average of only 42 percent and cooperatives in other regions increased in relative importance, volumewise.

The tonnage handled by cooperatives in the Western States ranged from a low of 14 million pounds in 1938 to a high of 67.5 million pounds in 1956 (table 3). The West North Central region was next in relative importance, with 55 million pounds marketed in 1956. During recent years the East North Central and South

Figure 7.—Number of farmer cooperatives marketing turkeys and pounds handled, 1918–56.



Atlantic regions also marketed important volumes. No turkeys have been marketed cooperatively since 1953 in the South Central region, which comprises such heavy-producing States as Texas, Arkansas, and Oklahoma.

Appendix table 5 shows the volume of turkeys marketed cooperatively from each State from 1936 to 1956.

Percentage of Total Sales

The total volume of turkeys marketed cooperatively has increased considerably since 1936, and the percentage of total United States sales has likewise increased. The percentage handled by cooperatives doubled from 1938 to 1956—from 8 to 16 percent (fig. 8).

Percentages of total sales handled by cooperatives in each geographic region and in the United States are shown in table 4. In general, regions having the largest production sold the largest percentage cooperatively. Total sales and percentages marketed cooperatively in 1956 by geographic regions were as follows:

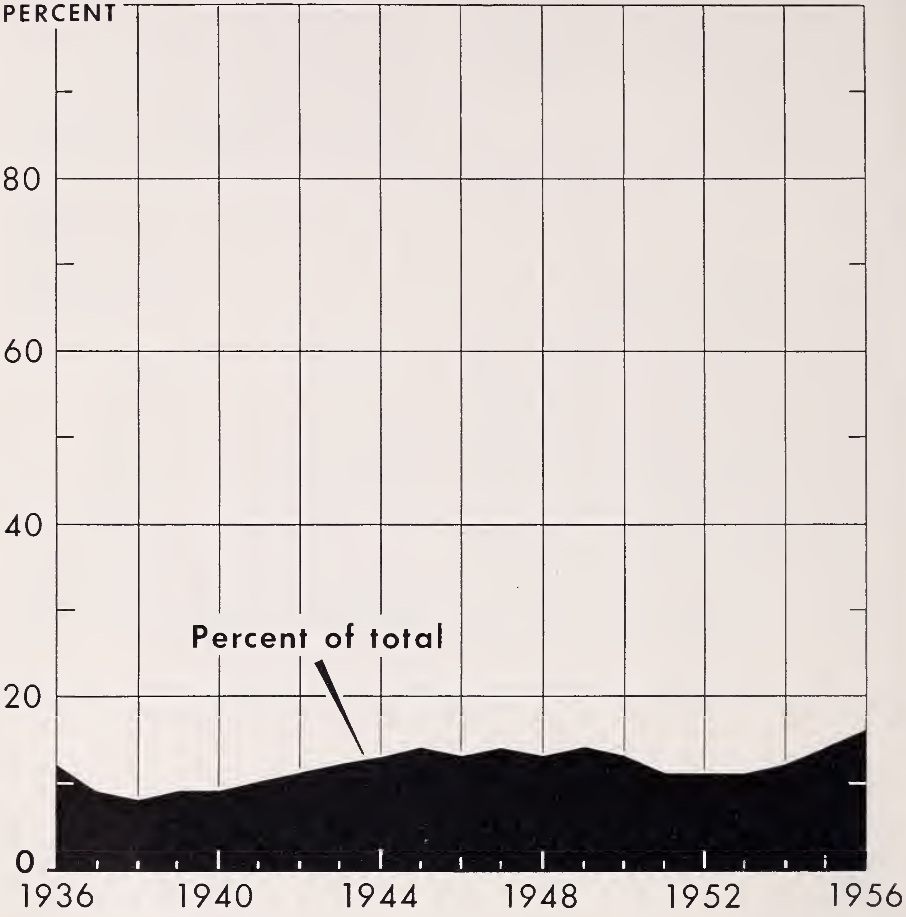
Geographic region	Total sales (live weight)	Percentage marketed cooperatively
	Million pounds	*Percent*
West North Central	349	20
Western	345	25
South Atlantic	171	7
East North Central	162	16
South Central	145	-------
North Atlantic	76	3

Table 3.—Pounds of turkeys (ready-to-cook weight) handled by farmer cooperatives, by regions and the United States, 1936–56 [1]

Year	North Atlantic	East North Central	West North Central	South Atlantic	South Central	Western	United States
				1,000 pounds			
1936	86	4	11, 235	70	1, 297	22, 067	34, 759
1937	76	11	8, 530	43	1, 125	16, 000	25, 785
1938	80	20	8, 217	22	1, 211	14, 283	23, 833
1939	77	297	11, 113	20	1, 405	18, 170	31, 082
1940	85	569	12, 429	408	1, 379	21, 868	36, 738
1941	93	617	14, 202	501	1, 309	21, 782	38, 504
1942	80	798	15, 599	900	1, 174	24, 685	43, 236
1943	92	693	12, 571	1, 399	1, 015	30, 245	46, 015
1944	94	464	14, 635	1, 603	1, 019	41, 461	59, 276
1945	91	972	18, 496	3, 253	1, 495	54, 450	78, 757
1946	151	1, 627	22, 710	4, 235	964	45, 315	75, 002
1947	221	1, 432	24, 590	3, 162	572	39, 872	69, 849
1948	249	2, 513	15, 562	2, 936	232	34, 153	55, 645
1949	519	4, 205	27, 957	5, 169	174	43, 731	81, 755
1950	662	3, 810	24, 277	7, 040	156	44, 807	80, 752
1951	880	5, 187	22, 619	8, 051	131	46, 246	83, 114
1952	1, 957	6, 895	23, 786	11, 496	152	48, 061	92, 347
1953	1, 896	10, 340	29, 188	6, 414	131	40, 209	88, 178
1954	2, 038	16, 117	37, 189	9, 380	-------	40, 284	105, 008
1955	1, 582	15, 592	40, 313	7, 425	-------	51, 507	116, 419
1956	1, 631	19, 826	54, 956	10, 012	-------	67, 529	153, 954

[1] Ready-to-cook weight.

Figure 8.—Farmer cooperatives' percentage of total pounds of turkeys sold, 1936–56.



The West North Central and Western regions sold the highest percentages cooperatively. These were also the two highest producing regions.

Percentages sold cooperatively in each of the various States are shown in appendix table 6. This table shows that in 1956 cooperatives in 8 States marketed a relatively high percentage of their State production ranging from 21 percent in Maine to 56 percent in Utah.

State	*Percentage handled cooperatively*
Utah	56
Wisconsin	52
Washington	44
Nebraska	40
Minnesota	36
Colorado	36
Oregon	29
Maine	21

All these States, except Wisconsin and Maine, are in the Western or West North Central regions.

In recent years cooperatives in several States east of the Mississippi

River handled relatively high percentages of the total crop. These included Wisconsin, Michigan, and Illinois in the East North Central region, and Maine in the North Atlantic region. The Virginia association has marketed a high portion for several years.

Types of Associations

Cooperatives that market turkeys may be divided into four general types: (1) Local turkey, (2) local poultry, and (3) centralized poultry associations, and (4) regional turkey federations.

In size, these associations range from small local cooperatives handling a few thousand pounds to a large regional federation which in 1956 marketed an estimated 65 million pounds for 14 member associations in 7 States.

Local Turkey Associations

The term "local association," as used in this report, refers to an association that operates over a rather small area, such as one or a number of counties, and has only one processing plant.

Local turkey associations handle important volumes. The 18 local turkey associations in 1956 handled a total of 112 million pounds, an average of 6.2 million pounds each

Table 4.—Percentage of turkeys handled by farmer cooperatives, by regions and the United States, 1936–56 [1]

Year	North Atlantic	East North Central	West North Central	South Atlantic	South Central	Western	United States
			Percent				
1936	1	(2)	12	3	2	30	12
1937	(2)	(2)	11	(2)	2	22	9
1938	(2)	(2)	9	(2)	2	19	8
1939	(2)	1	10	(2)	2	19	9
1940	(2)	2	9	2	2	19	9
1941	(2)	2	11	2	2	19	10
1942	(2)	2	12	3	2	19	11
1943	(2)	2	11	5	2	23	12
1944	(2)	1	11	5	2	25	13
1945	(2)	2	12	8	2	27	14
1946	(2)	3	13	10	2	23	13
1947	(2)	2	17	8	1	25	14
1948	1	5	14	7	1	24	13
1949	1	6	19	9	(2)	21	14
1950	1	5	15	10	(2)	21	13
1951	1	6	12	9	(2)	20	11
1952	3	7	12	10	(2)	18	11
1953	3	10	16	6	(2)	17	11
1954	3	13	16	7	-------	17	12
1955	2	14	17	7	-------	22	14
1956 [3]	3	16	20	7	-------	25	16

[1] Based on total pounds of turkeys sold, ready-to-cook weight basis. Total live weights sold were converted to ready-to-cook weights by using a shrinkage of 21.7 percent.

[2] Less than ½ of 1 percent.

[3] Preliminary figures for 1956.

Table 5.—Pounds of turkeys (ready-to-cook weight) handled by number and type of cooperative, 1956

Type of cooperative	Number of cooperatives	Volume handled	
		Total	Average
		1,000 pounds	
Local turkey associations	18	111, 786	6, 210
Local poultry associations	7	4, 491	642
Centralized poultry associations	5	37, 677	7, 535
Total or average	30	153, 954	5, 132

(table 5). Of these 18 associations, 4 handled relatively small volumes and the remaining 14 relatively large tonnages—an average of 7.7 million pounds.

In contrast, 69 local turkey associations handled an average of only 168,000 pounds each in 1936. The average of 6.2 million pounds handled by local turkey cooperatives in 1956 was 37 times that of similar associations 20 years earlier.

Local Poultry Associations

Before processing turkeys in ready-to-cook form became widespread, a large number of local poultry and egg, creamery, and grain cooperatives handled New York dressed turkeys as a sideline. In 1945, a total of 38 of these were handling turkeys. This number did not include local specialized turkey associations.

Most of these associations ceased handling turkeys when processing became a more highly specialized and complex operation. Ready-to-cook processing, including quick-freezing, requires costly facilities as well as large volume to keep unit costs low. Many of these cooperatives either were not financially able to install the necessary facilities, or the production of turkeys in their areas did not justify the expenditure. As a result, they ceased handling turkeys.

Of the 38 local poultry association handling turkeys in 1945, only 3 were still doing so in 1956. However, 4 other local poultry associations came into the turkey marketing field between 1945 and 1956, making a total of 7 (table 5).[5] No local creamery associations were

Centralized poultry associations process a large volume of turkeys along with other poultry products. Washington Cooperative Farmers Association, Seattle, is one of them.

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[5] One of these 7 associations is a federated poultry cooperative. However, in this analysis it is included with the local poultry associations because its area of operation is rather confined and it operates only 1 processing plant.

handling turkeys in 1956, all 7 were specialized egg or poultry marketing cooperatives.

These 7 handled nearly 4.5 million pounds in 1956. Their average of 642,000 pounds is only about one-tenth and one-twelth, respectively, as much as the volume marketed by the local but specialized turkey cooperatives and the centralized poultry cooperatives.

In most cases turkeys were a sideline operation of these associations, their principal business being egg marketing or poultry processing. Two of them, however, handled relatively large volumes of turkeys, from 1.4 million to 2.3 million pounds a year.

Centralized Poultry Associations[6]

The main differences between local and centralized associations, as the terms are used in this report, are in area served and number of plants. Centralized associations usually cover a wider geographical area and have two or more processing plants. They operate much the same as federations, but differ in that their members are individual producers rather than associations of producers.

Five centralized associations handle turkeys; 4 are poultry associations and 1 is a dairy (fig. 5). These cooperatives handled nearly 38 million pounds of turkeys in 1956, an average of 7.5 million pounds each (table 5). Tonnage of the 4 largest averaged more than 9 million pounds. These associations processed large volumes of chickens in addition to turkeys. The number of poultry processing plants they operated ranged from 2 to 6 and totaled 18.

Centralized associations generally provided more services to producers than did the specialized turkey cooperatives. In addition to their chicken and turkey processing and marketing services, they provided growers with feed, medication, and other production supplies. Three of the five associations furnished credit for turkey production and provided such other services as veterinary and field inspection. One cooperative operated several hatcheries and an experimental and research poultry farm.

Turkey Federations

Norbest Turkey Growers Association, Salt Lake City, Utah, was the only turkey federation operating in the United States in 1956. From 1938–40, however, there were three others—White Mountain Turkey Marketing Association, LaJunta, Colo.; Great Northern Turkey Cooperative, Inc., Jamestown, N. Dak.; and Southwestern Turkey Growers Association, Plainview, Tex.

Norbest Turkey Growers Association.—This association (originally Northwestern Turkey Growers Association) was the first of the four federations. It was organized in 1930 following a survey of cooperative marketing of turkeys in the Northwest made the preceding year by the Bureau of Agriculture Economics, Division of Cooperative Marketing (now Farmer Cooperative Service), U. S. Department of Agriculture. The survey report suggested that a central cooperative organization be formed to serve the many local turkey marketing cooperatives in the West.[7]

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[6] In this report, this group of associations will, for brevity, be termed "Centralized Poultry Associations" despite the inclusion of a dairy cooperative.

[7] SPRAGUE, G. W., COOPERATIVE MARKETING OF TURKEYS IN THE NORTHWEST. U. S. Dept. of Agric. October 1929.

Table 6.—Volume marketed by Norbest Turkey Growers Association, by fiscal years, 1930–31 to 1956–57

Fiscal year	Volume sold [1]	Fiscal year	Volume sold [1]
	1,000 pounds		*1,000 pounds*
1930–31	3, 533	1945–46	20, 193
1931–32	4, 274	1946–47	19, 287
1932–33	4, 088	1947–48	24, 248
1933–34	5, 472	1948–49	22, 546
1934–35	6, 575	1949–50	32, 639
1935–36	6, 928	1950–51	29, 178
1936–37	16, 302	1951–52	30, 244
1937–38	7, 754	1952–53	30, 295
1938–39	7, 097	1953–54	36, 424
1939–40	10, 742	1954–55	43, 743
1940–41	10, 587	1955–56	53, 702
1941–42	9, 009	1956–57 [2]	65, 000
1942–43	10, 112		
1943–44	11, 297		
1944–45	18, 676		

[1] New York dressed weight from 1930–31 through 1949–50. From 1950–51 to 1953–54 part of the volume was sold as New York dressed and part as ready-to-cook. After 1953–54 the entire poundage was on ready-to-cook basis.

[2] Estimated.

Since its beginning in 1930, Norbest has had a steady and rapid growth. Starting with 3.5 million pounds in 1930–31, its tonnage increased to an estimated total of 65 million pounds in 1956–57 (table 6). During these 27 years of operation, it has marketed a total of 540 million pounds.[8]

Originally Norbest was comprised of 2 district and 6 more or less statewide pools. There were State associations in Washington, Oregon, Nevada, Utah, Idaho, and Colorado, and two district associations in Montana. As some locals grew in size and others became smaller, the type of membership changed. The larger local organizations became members directly instead of through State associations representing several cooperatives, and the smaller locals became associate members.

Norbest continued to expand and in 1956 had member associations from California to Oregon and as far east as Wisconsin and Illinois. It marketed turkeys from about 1,500 producers.

In 1956 there were 1 associate member and 13 member associations, as shown on page 23.

The Norbest board of directors consists of a representative from each member association, each of them with one vote. The member associations own, operate, and control the federation. The associate member association is not entitled to a vote but participates otherwise.

Norbest realized early that its success would depend primarily on three factors: first, a high quality product; second, an effective sales

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[8] Part of this volume was sold as New York dressed and part as ready-to-cook.

Member associations

Antelope Valley Turkey Growers Association	Lancaster, Calif.
San Joaquin Valley Turkey Growers	Modesto, Calif.
Turkey Growers Cooperative of Central California	Selma, Calif.
Turkey Growers Cooperative of Northern California	Sacramento, Calif.
Oregon Turkey Growers	Salem, Oreg.
Utah Poultry and Farmers' Cooperative	Salt Lake City, Utah.
Moroni Feed Company	Moroni, Utah.
Nebraska Turkey Growers Association	Gibbon, Nebr.
Faribo Turkeys, Inc	Faribault, Minn.
Southern Minnesota Turkey Growers Association	Madelia, Minn.
West Central Turkeys, Inc	Pelican Rapids, Minn.
Central Illinois Poultry Cooperative Association	Havana, Ill.
Wisconsin Turkey Marketing Cooperative	Barron, Wis.
Richland Turkey Marketing Cooperative [9]	Richland Center, Wis.

organization; and third, strong and efficient member associations.

From the beginning it used U. S. Classes, Standards, and Grades for Dressed Turkeys. In fact, it was the first marketing organization of any kind to use these grades and standards for turkeys on a commercial basis. Its top brand, "Norbest," has been promoted and sold for 27 years, virtually on a national basis. It has sales agencies in six of the largest cities, New York, Boston, Chicago, Philadelphia, Los Angeles, and San Francisco and sales representatives in several other major cities.

Norbest finances the expenses of its central office and builds operating capital by withholding a fraction of a cent a pound on turkeys and on each turkey hatching egg handled. The capital accumulated is set up on a revolving fund basis. Equity of member associations in Norbest in 1956 was in excess of $1.5 million. In addition, a total of $363,000 had been returned in cash to the member associations over the years.

Federations No Longer Active.—Southwestern Turkey Growers Association operated in Texas and Oklahoma during the 4 years 1937–40. At one time it had 9 members but it handled only 200,000 to 400,000 pounds a year. When most of the locals ceased handling turkeys, Southwestern became inactive.

White Mountain Turkey Marketing Association operated from 1933 to 1954. Its area of operation was confined to the southeastern section of Colorado, which limited its number of members. However, at one time it had 7 member associations and handled between 1 million and 4 million pounds of turkeys a year. After all the local turkey cooperatives in Colorado except one ceased

The "Norbest" brand has been promoted and sold for 27 years.

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[9] Associate member.

to operate, there was no need for an overhead sales agency and this federation ceased operations in 1954.

Organized in 1938, the Great Northern Turkey Cooperative, Inc., operated over a large area. During its early years it marketed turkeys from member associations in 8 States—North Dakota, South Dakota, Montana, Wyoming, Nebraska, Minnesota, Wisconsin, and Colorado. At one time the White Mountain Association was a member of this federation. During 1941, 17 cooperatives shipped through Great Northern Turkey Cooperative, Inc., but the total volume reached only 1.75 million pounds. By 1947, only a few member associations were still active, and tonnage dropped to less than 50,000 pounds. In 1948, this federation ceased to operate.

Organizational Setup

TURKEY marketing cooperatives vary widely in their legal and organizational setups. They differ in membership requirements, marketing agreements, voting rights, selection of boards of directors, and methods of financing.

Membership Requirements

As shown in table 7, 20 turkey marketing cooperatives had 6 different requirements for membership. Eight, or 40 percent, required members to sign a marketing agreement and pay a stipulated membership fee. One association required only the signing of an agreement and another the payment of a membership fee.

Seven other associations required that each member own 1 share of common stock; 1 required instead ownership of 1 share of preferred stock. The remaining 3 associations required a producer to patronize the cooperative or to market his turkeys through it to become a member.

A common requirement among all 20 associations was that members be bona fide agricultural producers and their membership approved by the board of directors.

In every instance in which an association required payment of a membership fee, this was an initial fee and not a recurring annual charge. These fees ranged from $1 to $100, as follows:

Amount of membership fee	*Number of associations*
$1	3
$5	2
$10	2
$100	1
Total	8

Table 7.—Membership requirements of 20 selected associations marketing turkeys, 1955–56

Membership requirements [1]	Number of associations involved
Sign marketing agreement and pay membership fee	7
Sign marketing agreement	1
Pay membership fee	1
Own one share of common stock	7
Own one share of preferred stock	1
Patronize association	[2] 3
Total	20

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[1] Membership requirements also usually stipulated that a member must be an agricultural producer and be approved by the board of directors.

[2] 1 association required a minimum patronage for membership eligibility.

Twelve nonstock associations used the one-member, one-vote basis of voting at annual meetings similar to this.

Marketing Agreement

Many turkey and other marketing cooperatives require members to sign agreements to deliver all or a specified percentage of their turkeys or other product to the cooperative, usually for a stated number of years. Members thus agree to stand together in their marketing effort through the medium of a cooperative—to stand by their neighbors in supporting their own joint business. Besides their legal value, marketing agreements are tangible evidence of members' faith and confidence in one another.

A turkey marketing agreement is a two-way arrangement. The members agree to deliver their turkeys and the association agrees to accept and market them. Members have the assurance of a dependable market outlet for the turkeys covered in the agreement. The association has some assurance that members will provide it with a definite volume of turkeys.

A newly organized cooperative may need a marketing agreement to give it definite assurance of initial member support. This is especially true when initial capital and volume requirements are large or when firm commitments to market outlets require an assured or minimum volume. After an association becomes established, marketing agreements may be less important.

Of 9 associations which used marketing agreements, 6 were located in the 3 Pacific States. In fact, all turkey cooperatives in California, Oregon, and Washington used producer marketing agreements.

Delivery Requirements.—Delivery requirements in the marketing agreements varied from none to all turkeys marketed. However, associations requiring delivery of all turkeys made allowance for those used for home consumption, breeding stock, and, in some instances, local consumer sales.

Three associations did not require delivery of a specified percentage of the turkeys raised. Rather, they required producers to agree to ship a specified number to the cooperative.

Five associations required members to ship all turkeys produced. One association had no delivery requirements, the agreement merely serving as evidence of membership and giving the cooperative authority to withhold a specified amount from the producer's returns for capital purposes.

Penalty for Violation.—Five of the nine associations using marketing agreements had monetary penalty clauses for violation. Three used 1 cent a pound penalty; one, a half cent a pound; and one, 5 cents a pound. One cooperative had no penalty clause in its agreement.

The penalty at 3 other associations was a newer type—cancellation of the agreement and membership.[10] Some cooperative officials believe this cancellation penalty is more effective than a monetary penalty, and more easily carried out. They believe it causes members to be more loyal and appreciative of the privilege of belonging to the association.

Duration of Agreement.—The agreements covered periods ranging from 1 year at 3 associations to perpetual or continuous at 6. In all instances either members or associations were permitted to cancel continuous agreements during a certain period each year.

Stock Ownership

As a membership requirement, seven associations required each producer to purchase one share of common stock and one required purchase of a share of preferred stock (table 7). The par value of the common stock varied from $1 to $25, as follows:

Par value of share	*Number of associations*
$1	2
$10	3
$25	2
Total	7

Voting Rights

Eight of the 20 associations were of the stock type. Seven of these and the 12 nonstock associations used the 1-member, 1-vote basis of voting. Only 1 association permitted voting on the basis of number of shares of stock held.

Voting on the basis of number of shares of stock held is similar in effect to voting according to patronage or business done through the cooperative. Members in the one association had to purchase stock in relation to the volume of products shipped to the association. They invested 1 cent a pound and were issued $10 stock certificates in evidence thereof. They were permitted one vote for each $10 share with a maximum of 5,000 votes. To have 5,000 votes, a member would need an investment in the association of $50,000 or more.

Directors

The boards of turkey cooperatives vary as to number of directors, length of term, number of consecutive terms permitted, and staggering [11] of terms.

The number of directors varied from 5 to 16 among the 20 associations. More than half had 7 directors. Of the remaining 9 cooperatives, 3 had 5 directors, 1 had 9, 2 had 11, and 1 had 16 directors. The three cooperatives having 11 or

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[10] A poultry marketing cooperative is using this cancellation penalty in its egg-marketing agreement. The first time that the agreement is violated the producer is expelled for at least 1 year. If he becomes a member again and violates a second time, he is expelled for a 3-year period. A third violation disqualifies him permanently from membership.

[11] That is, the terms of different board members begin and end during different years.

Investments of producer-members helped build this new plant of Holbrook Turkey Growers at Cheraw, Colo.

more were centralized poultry organizations, not local turkey associations.

Boards of directors of the 3 poultry cooperatives included both chicken and turkey producers. However, only 5 of the total 38 directors of these associations were turkey producers. One association had 2 turkey producers on the board, another had 3, and the third had none.

The bylaws of one poultry association stipulate that at least two directors must be turkey producers.

Directors were elected for either 1-, 2-, or 3-year terms, with 3-year terms being most prevalent. Fifteen of 20 associations elected directors to 3-year terms, 3 associations to 2-year terms, and 2 to 1-year terms.

Generally, cooperative leaders now favor 3-year terms. When directors have more time to become acquainted with the operations of their association, they are likely to be more active, well-informed, and productive.

All 18 associations electing directors for 2-year or 3-year terms staggered the terms so that all did not expire at the same time. This usually was done by electing one-third of the directors each year. Only 2 of the 20 associations limited the number of consecutive terms a director might serve. Both of these set a limit of 2 terms, or 6 years.

Automatic rotation of directors, by limiting the number of terms an individual can serve, is of fairly recent acceptance by cooperatives. This practice has the advantage of bringing more and usually younger men into active participation in association management, thereby gaining their interest, support, and help.

Some cooperative leaders believe this rotation practice has a disadvantage in that it often takes a director several years to become

Table 8.—Total and average equity capital of 20 cooperatives marketing turkeys, by source of capital, 1955–56 [1]

Source of capital	13 turkey cooperatives owning processing facilities		4 turkey cooperatives not owning processing facilities		3 centralized poultry cooperatives [2]		Total or average		
								Capital	
	Number of associations	Amount of capital	Number of associations	Amount of capital	Number of associations	Amount of capital	Number of associations	Amount	Percentage
Total									
Membership fees	7	$7, 708	--------	--------	1	$96	8	$7, 804	0. 2
Capital stock [3]	6	311, 927	2	$1, 320	(4)	(4)	8	313, 247	7. 1
Operating savings	9	1, 967, 392	3	17, 344	2	829, 661	14	2, 814, 397	64. 2
Capital retains	5	909, 510	--------	--------	1	337, 820	6	1, 247, 330	28. 5
Total [5]	13	3, 196, 537	[6] 3	18, 664	3	1, 167, 577	[6] 19	4, 382, 778	100. 0
Average per association [7]									
Membership fees	7	1, 101	--------	--------	1	96	8	975	--------
Capital stock [3]	6	51, 988	2	660	(4)	(4)	8	39, 156	--------
Operating savings	9	218, 599	3	5, 781	2	414, 830	14	201, 028	--------
Capital retains	5	181, 902	--------	--------	1	337, 820	6	207, 888	--------
Average [5]	13	245, 887	[6] 3	6, 221	3	389, 192	[6] 19	230, 673	--------

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[1] Not including capital invested in federated or other associations.

[2] Includes amounts allocated to turkey department only. Does not represent total equity of associations.

[3] Includes both common and preferred stock.

[4] The amount of capital stock for one association is not shown because it is not possible to correctly allocate a proportionate amount to the turkey department.

[5] Most associations used more than one source of accumulating capital

[6] One of the 4 associations had no equity capital.

[7] Average figures obtained by dividing the amount of capital by the number of associations concerned.

well-informed about association affairs. In their opinion, members attain a position of greater helpfulness after a period of directorship and cooperatives should make use of their services, not disqualify them from continuing as directors.

On the other hand, the services of ex-directors need not be lost. They are likely to remain interested and active members and their intimate knowledge of and experience in association affairs can be used by putting them on committees or using them in advisory capacities. Moreover, they become eligible for election to the board again after a prescribed period.

Financing

Often the problems of turkey and other cooperatives have been directly related to inadequate or unsound financing. In the case of the turkey cooperatives, financing was considered a major association problem even during the early pool years when turkeys were dry picked at the farm and when only limited services were performed by the cooperatives.

A modern turkey processing plant, which usually includes a quick freezer, requires a large investment. New plants may cost $400,000 or more, depending on their size and type and amount of equipment. Since many turkey associations now have 100 or fewer active members, this means a relatively large investment by each.

Experience has shown that turkey cooperatives need a positive and aggressive financial program. Such a program should provide sufficient capital for sound, progressive operations, and make possible revolving producer capital within a reasonably short period of time—such as in 5 or 6 years.

Methods of Accumulating Capital

Building a substantial amount of member capital in an operating, processing, and selling cooperative is almost always advisable. Farmer cooperatives use four principal methods to build and maintain capital. These are (1) collecting membership fees, (2) selling common and preferred stock, (3) retaining savings from operations, and (4) taking a capital deduction or a retain per unit of product handled.

Cooperatives handling turkeys use one or more of these methods, but the last two mentioned have been the most common.

Membership Fees.—As shown in table 7, only 8 of 20 associations marketing turkeys collected initial membership fees. Their payment merely designated membership in an association and was not an important source of capital, accounting for only a small fraction of 1 percent of the total equity capital of the 20 turkey cooperatives.

Table 8 shows that a total of $7,804 was accumulated from membership fees, an average of only $975 per association. Most, or 86 percent, of this came from one local turkey association.

Capital Stock.—Eight of 17 local turkey associations sold stock to build capital. The total common and preferred stock sold amounted to 7.1 percent of the total equity capital of the 20 turkey cooperatives. At the end of the 1955–56 fiscal year, this stock totaled more than $313,000 (table 8). Capital stock of 6 turkey cooperatives owning facilities averaged nearly $52,000 per association, but only $660 for 2 cooperatives not owning facilities.

Five of these 8 turkey cooperatives sold preferred stock. This amounted to an average of more than $61,000 per association—an important part of their total capital. The other 3 associations issued only common stock.

Only one centralized poultry association issued preferred stock. The amount is not shown in table 8 because it was not possible to allocate a correct amount to the turkey department.

Operating Savings.—Operating savings were a major source of capital, accounting for over 64 percent of all the equity capital of 20 turkey cooperatives. Fourteen used this method of accumulating capital. In total, producers had invested more than $2.8 million by the end of the 1955–56 fiscal year, an average of more than $200,000 per association (table 8). This does not include amounts previously returned to producers in cash.

Although most of the cooperatives withhold in full the operating savings each year, this method cannot be relied upon as a consistent source of member capital. Operating savings may vary widely from year to year because many factors influence them. There may be losses instead of savings in some years.

Capital Retains.—Building capital by retaining a specified amount from each pound of turkey handled offers an association a positive plan of building capital and is equitable to patrons. Under this plan the member invests annually in the cooperative in proportion to the business he does with it, and in time he receives payment in cash for the capital invested during previous years. This method of financing is well suited to cooperative operation.

Capital retains accounted for over 28 percent of the accumulated equity capital of the 20 turkey cooperatives included in table 8. Table 8 shows that at the end of the 1955–56 fiscal year 6 cooperatives had accumulated nearly $1.25 million by the capital retain method, an average of almost $208,000 per association. These amounts do not include earlier capital returned to members in previous years.

Turkey cooperatives try to accumulate a substantial amount of capital each year. After meeting current operating requirements, the remainder may be available to retire or revolve the oldest capital or, if needed, to add to the net worth. Financial programs are planned and executed to meet the capital needs of the association insofar as possible.

The use of a combination of the operating savings and capital retain methods is often most effective. A capital retain per unit of product handled would assure a capital accumulation each year under most circumstances. Capital accumulation from savings may be used to supplement this.

Capital from operating savings may be set up in a separate reserve, such as a "reserve for contingencies." The board of directors usually has the authority to place all or a portion of the annual savings in this reserve or to return them to patrons in cash as patronage refunds. This affords flexibility. When turkey prices are highly competitive, cooperatives may return all or part of the savings to maintain volume in subsequent years, or to add normal or expected savings to current returns to meet competition. In other years an association may be in a position to pay prices as high as or higher than competitors and at the same time withhold substantial savings to add to its reserve.

Funds in this reserve may be accumulated and retired when conditions warrant. In case of losses, the equity of patrons in such a reserve is reduced. Bylaws of associations using this method of financing ordinarily provide for allocation of such losses.

Total Capital Accumulation.—Among the cooperatives marketing turkeys, all 4 methods of building capital were used to varying degrees (table 8). At the end of their 1955–56 fiscal years, the equity capital of 19 associations totaled $4.4 million and averaged $230,700.[12]

The 13 local turkey cooperatives which owned processing facilities had capital averaging nearly $246,000 each. The 3 not owning processing facilities averaged $6,221 each, and the 3 centralized poultry associations had a capital investment from turkey growers which averaged $389,000 each.

The capital of the 3 poultry cooperatives for turkey and all other operations totaled nearly $23 million and averaged $7.6 million each (table 9).

Revolving Capital

Money that cooperatives obtain from patrons by a capital retain or by selling them preferred stock is in the nature of loans from them. Patrons expect such capital to be kept intact and to be repaid in full at a later date.

Records show that as of 1955–56 the 20 turkey cooperatives had retired capital of more than $1.9 million. This amounted to an average of approximately $96,000 per association (table 10). The 17 local turkey cooperatives had revolved capital of nearly $1.1 million and the 3 centralized poultry associations, $835,000.

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[12] 1 of the 20 associations had no equity capital and therefore was not included in this statement.

Seventeen associations provide turkey hauling service from farms to processing plant.

Table 9.—Total and average equity capital of three centralized poultry cooperatives marketing turkeys, 1955–56

Type of capital	Equity capital [1]	
	Total	Average per association
Capital stock	$544, 526	$181, 509
General reserves	543, 592	181, 197
Patrons' equities	21, 692, 555	7, 230, 852
Total	22, 780, 673	7, 593, 558

[1] Not including capital invested in other associations.

About two-thirds of the money returned to producers came from revolving old capital, commonly called "capital revolving fund," and one-third from the accumulated and set-aside operating savings.

In other words, turkey producer-members of the 20 cooperatives had invested a total of $6.3 million in their associations and received cash payments on this totaling over $1.9 million, leaving a net investment at the end of the 1955–56 fiscal year of nearly $4.4 million. Table 11 gives a breakdown of this information for each of the 3 groups of associations—the 13 local turkey cooperatives owning processing facilities, the 4 local turkey associations not owning processing facilities, and the 3 centralized poultry cooperatives.

The oldest capital outstanding averaged 7 years. The 20 cooperatives had been accumulating capital for an average of 11 years and had, on the average, retired that of their first 4 years. The 11 oldest

Table 10.—Total and average capital revolved or returned to producers of 20 cooperatives marketing turkeys, 1955–56 [1]

Type of capital	13 turkey cooperatives owning processing facilities	4 turkey cooperatives not owning processing facilities	3 centralized poultry cooperatives [2]	Total or average
		Total		
Revolving capital	$590, 899	$41, 845	$640, 578	$1, 273, 322
Annual savings [3]	455, 168	--------	194, 088	649, 256
Total	1, 046, 067	41, 845	834, 666	1, 922, 578
		Average per association		
Revolving capital	45, 454	10, 461	213, 526	63, 666
Annual savings [3]	35, 013	--------	64, 696	32, 463
Total	80, 467	10, 461	278, 222	96, 129

[1] Not including capital revolved by federated associations or dividends paid on capital stock.

[2] Includes capital revolved or returned to turkey producers only.

[3] Paid in cash shortly after end of fiscal year when earned.

Table 11.—Total amount of capital accumulated, revolved or returned, and producers' net equity of 20 farmer cooperatives marketing turkeys, 1955–56 [1]

Association group	Number of associations	Capital		
		Accumulated	Revolved	Net equity
		Total		
Turkey co-ops owning processing facilities	13	$4,242,604	$1,046,067	$3,196,537
Turkey co-ops not owning processing facilities	4	60,509	41,845	18,664
Centralized poultry co-ops [2]	3	2,002,243	834,666	1,167,577
Total	20	6,305,356	1,922,578	4,382,778
		Average per association		
Turkey co-ops owning processing facilities	13	326,354	80,467	245,887
Turkey co-ops not owning processing facilities	4	15,127	10,461	4,666
Centralized poultry co-ops [2]	3	667,414	278,222	389,192
Total or average	20	315,268	96,129	219,139

[1] Not including capital investments in or retirements from federated associations.

[2] Includes amounts pertaining to turkey department only.

associations had been operating for an average period of 17 years. Their oldest capital averaged 10 years, and, on the average, they had revolved the capital of their first 7 years.

Operating Methods and Practices

ALL the turkey cooperatives except the federations performed essentially the same services for the producers. They hauled the live turkeys to the processing plant, processed, graded, and sold them, and then paid each producer according to the grade and dressed weight of his birds. Their methods and practices of dealing with producers, however, varied somewhat.

Hauling Live Turkeys to Plant

Of the 20 cooperatives all except 3 were responsible for hauling live turkeys from farms to their processing plants.

Seventeen cooperatives either did the hauling themselves or hired it done. Of these, 1 hauled all the turkeys, 7 hired all hauled, and 9 hired the majority hauled.

One of the 3 remaining associations required producers to either haul their birds or arrange to have them hauled. In the other 2 associations, the processors did the hauling when birds were custom dressed.

Payment by Grade and Dressed Weight

Since their beginnings, turkey marketing cooperatives have consistently paid growers according to grade and dressed weight. In 1947, 38 of 43 associations surveyed paid producers on a New York dressed weight and graded basis. The remaining 5 based payments on live weight.

Table 12.—Type of grade and weight basis used by 22 farmer cooperatives marketing turkeys, 1955–56

Grade	Weight basis	Number of cooperatives
Federal	Ready-to-cook	15
Association	do	3
Dealer	do	1
Association	New York dressed	1
No grade [1]	Live	2
Total		22

[1] Flocks were graded to the extent of taking out culls and undergrades.

In 1955–56, 19 of 22 cooperatives paid growers on a ready-to-cook grade and weight basis, 2 based payments on live weight, and 1 on New York dressed weight (table 12). Of the 19 associations which based payment on ready-to-cook weight, 15 used the U. S. grades; 3, their own grades; and 1 dealer or the buyer's grade.

Cooperatives recently adopted the practice of basing payment on a ready-to-cook grade and weight basis. Since most of them sell turkeys on this basis, they consider it more equitable to pay producers accordingly. Also, since this practice rewards producers more directly according to quality, it serves as an incentive to them to produce high-quality turkeys.

Payment Plans

Virtually all local turkey cooperatives have modern and efficient processing and freezer plants. The only way for them to operate efficiently is to utilize facilities at near or full capacity. To do this requires turkey payment programs that will meet the different needs and desires of producers.

For this reason, producers may be offered a choice of several payment plans—pool, consignment, full cash payment, or a grower control arrangement. The method selected by the grower may depend upon market conditions at delivery time and upon the choices offered him by his particular association.

Pooling

When growers are paid on a pool basis, all receive the same price per pound for the same grade, size, and sex of turkeys for the pool period. Under this method producers usually receive a conservative advance at the time of delivery of 60 to 75 percent of the market or estimated selling price, less estimated marketing and processing costs. If a pool is slow in being closed out, a second or additional advance may be

U. S. Department of Agriculture official discusses turkey quality with a buyer.

made when most of the turkeys in the pool have been sold. Final payment is made after all turkeys in the particular pool have been sold or the selling price and costs have been determined.

Under this method, associations take title to the turkeys and can market them in as orderly and advantageous a manner as possible.

The length of time of a pool depends upon market and production conditions and upon the desires of members. Some cooperatives have weekly pools, others have monthly, bimonthly, or annual pools.

The pool method gives associations the advantage of operating without undue risks because of market declines, since producers receive only partial payment at the time of delivery. However, when associations desire to expedite the closing out of pools, they may make final payment before all the birds have been sold and assume the risk of market decline on this portion.

Pooling may or may not give a price advantage to the grower. Should prices rise between the time the turkeys have been pooled and their sale, the grower will benefit by the price enhancement. On the other hand, should prices decline before the pooled turkeys are sold, his price will be lower. The association can pay no more than the net price received from sales. The producer's principal objection to pools is the delay in final settlement.

Virtually all turkey marketing cooperatives operated under the pooling method during their first years or when they were not financially able to operate otherwise. This was no longer the case in 1956. Most associations were no longer pooling—not because it was unsound, but because growers demanded more prompt payment for their turkeys. Often the initial advance under the pooling method was not sufficient to pay the feed account or other expenses such as for poults and equipment.

A survey made in 1947 revealed that 38 of 43 cooperatives, or 88 percent, then operated under the pooling method. As shown in table 13, only 5 of the 22 associations, or 23 percent, used the pooling

Table 13.—Methods of paying producers for turkeys, 22 farmer cooperatives, 1955–56

Methods of paying producers	Number of associations	Average percentage of turkeys under method
Pool (advance and additional payments):		
Used exclusively	5	100
Used partially	6	49
Consignment:		
Used exclusively	----------	----------
Used partially	10	40
Full cash payment:		
Used exclusively	1	100
Used partially	10	63
Grower control:		
Used exclusively	----------	----------
Used partially	12	23

A large percentage of the members of turkey marketing cooperatives attend their annual meetings.

method exclusively in 1955–56. Six other cooperatives marketed an average of 49 percent of their total tonnage through pools. Another 27 percent offered pools to growers who preferred this method—mostly for breeder turkeys or large toms going into storage.

Consignment

The consignment method has certain similarities to the pool in that the grower consigns his turkeys to the cooperative for sale. Also he receives an advance payment for his birds upon delivery to the association and gets the final payment after the turkeys are sold.

Consignment differs from pooling in that each producer may be treated differently, pricewise, during the period. A grower receives the price his own turkeys bring, less estimated marketing and processing costs, rather than an average price with other producers, as in the pooling method. If the association is slow in selling his birds, at his request it may inventory them at existing prices and settle with the grower.

The consignment method has advantages to the associations which are similar to those of the pools. In addition, it has an advantage to the grower over the pooling method in that settlements are usually made more quickly and the grower usually has some voice in the selling price. On the other hand, if growers desire settlement before their birds are sold and the cooperative buys the consigned birds, the association may incur some risk on this unsold portion.

Table 13 shows that 10 associations bought 40 percent of their turkeys on consignment in 1955–56. As with the pooling method, the amount handled by consignment may vary from year to year depending on market and other conditions.

Full Cash Payment

Many growers prefer full payment at delivery because they need money to pay feed and other accounts and because they do not want to risk market declines. Generally, however, cooperatives prefer not to make full cash payment at the time turkeys are received at the plant. Those which make full settlement do so mainly because of competition from other buyers who operate on that basis.

However, full cash payment is becoming more prominent among turkey cooperatives, especially among associations which are members of Norbest. Of 22 cooperatives, 1 made full cash payment for all turkeys handled in 1955–56 and 10 others bought outright an average of 63 percent of their birds. In 1946, only 12 percent of 43 turkey cooperatives made full cash payment at delivery time; in 1955–

56, 50 percent used this method to a large extent.

Many turkey cooperatives are now able to make full cash payment at time of delivery because they have increased their operating capital sufficiently to do so. Norbest members, by systematically investing for several years in their sales federation, have accumulated a relatively large amount of capital which enables them to make cash purchases.

These federated member associations do not provide all the funds nor do they assume the risk from market declines when turkeys are purchased outright for Norbest. The possible gains or losses to Norbest are minimized because it usually has firm advance sales for these birds. Inventories of Norbest-owned turkeys are held reasonably low to keep losses small in case of market declines.

While the cash method of handling turkeys is not necessarily the choice of cooperative leaders, it apparently can be used without serious danger of loss if necessary precautions are taken.

Grower Control

Under the pooling, consignment, and cash payment methods, cooperatives have complete responsibility for selling the turkeys. In contrast, under the grower control method, the producer retains the sales responsibility and determines the time of sale and price. The association is merely his sales agent.

Some growers prefer to retain sales control over part or all of their birds because they feel they can obtain greater returns that way. Under this method, associations make advance payments at delivery time of about 50 percent of the estimated market price. As with the consignment method, the grower receives the full proceeds from sales less estimated marketing and processing costs.

This method is primarily a service to growers. However, it is of benefit to associations because it increases their processing volumes, thereby helping to lower costs.

Table 13 shows that 12 associations used the grower control method and that it represented an average of 23 percent of their total tonnage.

Membership Relations

An effective and continuous program of keeping members adequately informed about, and in contact with, their association is one of the most important activities of a farmer cooperative. One purpose of a membership program is to build and maintain members' faith and confidence in their organization.

Many local turkey cooperatives operate only seasonally and perform the single service of marketing. This makes for little member contact. Nevertheless, most local cooperatives do a commendable job of trying to keep members well-informed.

Of 18 local turkey associations, 8 employed a fieldman who contacted growers at their farms. Ten had no fieldmen. However, the manager or another official of the 10 not having fieldmen called in person on most members during the year. Usually the fieldmen acted also as buyers of turkeys, but not as veterinary and production management advisers. Each of the 4 centralized poultry associations employed field servicemen. One had 6 fieldmen who worked with both poultry and turkey producers.

In 1956, fieldmen and other association officials called on an average of 92 percent of all members producing turkeys. Some members were visited several times during the year.

A large percentage of the members of turkey cooperatives attended their association's annual meeting. Of 15 local turkey cooperatives for which information was available, an average of 73 percent of the members came to this meeting. An average of 49 percent of the turkey members of 2 centralized poultry associations attended their annual meeting.

Fifteen local turkey associations distributed a membership publication in 1956. Eight cooperatives issued their own publications. In addition the Norbest monthly news letter, *Norbest Turkey News,* was distributed to members of the affiliated associations. Three centralized poultry associations issued their own publications.

All of the associations presented annual reports to members. Seven local turkey associations did not distribute a written annual report, but presented an oral report at the annual meeting.

Although cooperatives now spread their turkey handling over more of the year than formerly, it is still essentially a seasonal operation. This adds to the difficulty of maintaining year-round interest of the producers in their cooperative.

In 1956, more than half the local turkey cooperatives were relatively inactive from the time turkeys were processed in the fall and sales returns made until the next fall. Of 17 associations, 10 operated seasonally and 7 all year. The 7 associations processed turkeys every month but operated only 1 or 2 days a week in the slack season. Most of those operating seasonally started processing in August and finished in January. A few commenced earlier.

All of the centralized poultry associations handled eggs, chickens, and farm supplies throughout the year, but generally handled turkeys only during the fall season.

Such seasonal operations create membership relations problems. However, a turkey cooperative has an advantage over many other types of associations in that its membership is usually small enough to permit contacting members per-

Tank cooling room in modern turkey processing plant.

sonally. The number of members to be kept informed of association affairs is often less than 100.

Selling

Prior to the organization of Norbest in 1930, each cooperative sold its turkeys independently. There was little or no coordination of effort among the associations. Norbest and other overhead sales federations then brought many of the locals together for more effective sales purposes.

Of the 30 cooperatives marketing turkeys in 1956, 14 shipped through Norbest, 3 owned and operated their own sales agencies in terminal markets, and 13 sold directly to chain stores, wholesalers, and other buyers.

Members of Norbest turn over most of the sales responsibility to it. They make local and usually intrastate sales, but Norbest handles all terminal market and out-of-State sales. Twelve of the 21 turkey marketing cooperatives west of the Mississippi River are Norbest members. Its membership includes all except 2 of the specialized turkey cooperatives in this area.

The sales and other operations of Norbest were discussed in some detail earlier in this report.

Operating Costs

MAINTENANCE of the lowest costs possible is of prime importance to turkey marketing cooperatives because of the narrow marketing margins in this highly competitive industry. Factors which have caused increased and more specialized production have likewise made necessary larger and more efficient processing and marketing agencies and facilities. Thus cooperatives need information on factors affecting costs.

Among these factors are labor output, labor rates, investment in fixed assets, and degree of facility utilization. No attempt was made in this study to make careful analysis of the costs of handling turkeys through cooperatives or of the factors affecting these costs. This will be done in a later study, as mentioned on page 1.

However, some study was given to (1) the amount of capital invested in facilities as a cost factor, (2) plant capacities, (3) the overall association costs per unit of product handled, and (4) rates charged by cooperatives for processing as an indication of costs.

Investment in Facilities

The recent change from New York to ready-to-cook processing has required many modifications in facilities and operations and has resulted in larger plants with much heavier investment. To meet the change, cooperatives altered and expanded old plants or built new ones. They purchased new and additional equipment for eviscerating and packaging and added quick-freezing facilities.

These new and expanded operations required considerable investment in physical facilities. The average value of assets of 11 local turkey cooperatives in 1955–56 was $467,152 (table 14). Of this amount, 53 percent was invested in buildings and plant equipment. The balance of $221,045 was in such

Table 14.—Average value of assets, liabilities, and net worth of 11 local turkey cooperatives, 1955–56 [1]

Item	Average value	Percent of total assets
Assets:		
Building and plant equipment [2]	$246, 107	53
Other assets	221, 045	47
Total	467, 152	100
Liabilities	166, 763	36
Net worth	300, 389	64

[1] Two of the 11 associations did not own quick-freezers.

[2] Depreciated value. Cost value averaged $335,811. The cost of buildings and plant equipment of the 9 plants having freezers and freezing equipment averaged $367,641.

other assets as cash, inventories, receivables, and trucking equipment.

Processing Capacity

Maximum efficiency is dependent upon full use of facilities. It requires close coordination between the different operations, such as processing, cooling, and freezing, so that full capacity is maintained at each stage. The lowest rate of output at any stage may determine the overall rate of output.

Processing capacities at most plants are actually determined by the ice cooling or quick freezing capacities. Plant output during a 24-hour period cannot be increased beyond these capacities. This often limits the plant output to that of one 8-hour shift.

Modern turkey plants are geared to handle a large volume of turkeys in a short period. The capacity per 8-hour day at 25 cooperative plants in 1955–56 averaged either 3,900 heavy toms, 5,400 heavy hens, 6,800 mature light breed turkeys, or 7,500 fryer-roaster turkeys (table 15).

Table 16 shows the capacities of 25 cooperative plants. The capacity of heavy toms at 21 plants ranged between 2,000 and 6,000 an 8-hour shift. Twenty plants had capacities ranging from 3,000 to 8,000 heavy hens, and 6 plants from 8,000 to 10,000 fryer-roaster turkeys per 8 hours.

Table 15.—Average processing capacity per 8-hour day of 25 turkey cooperative plants, 1955–56 [1]

Size of turkeys	Average number of turkeys	Number of plants
Mature heavy toms	3, 886	25
Mature heavy hens	5, 386	25
Mature light breeds	6, 825	4
Fryer-roasters	7, 485	10

[1] Several of the cooperatives had more than 1 processing plant.

Most turkey associations own and operate facilities for quick-freezing. Of 21 associations surveyed, 15 owned freezers and 6 had this service performed for them at commercial freezer plants.

The 15 cooperatives operated 19 freezers with total daily capacity of 1.66 million pounds—an average of 87,000 pounds per plant. This is equivalent to 5,240 birds averaging 16.6 pounds each.

The daily quick-freezing capacities of the 19 cooperative plants are as follows:

Freezing capacity (pounds)	*Number of plants*
30,000	1
50,000	4
60,000	1
65,000	1
70,000	2
80,000	1
90,000	1
100,000	3
120,000	2
150,000	3
Total	19

Comparison of Costs Among Plants

The relative efficiency of organizations can be measured by several methods. One is to compare the total costs of one organization with those of others. This method was used in this study because operations of the several associations are essentially similar.

In the following analysis, costs of processing ready-to-cook turkeys by five local turkey cooperatives are compared. The costs at each association included the expense of hauling live turkeys to the plants, processing, packaging, and freezing. Selling costs were not included.

The cost data used were obtained from the annual operating statements of the associations. No attempt was made to analyze in detail costs by individual operations. Neither was an attempt made to explain differences in unit

Table 16.—Processing capacity per 8-hour day of 25 turkey cooperative plants, 1955–56 [1]

Number of turkeys processed per 8-hour day	Mature heavy breed		Mature light breed turkeys [2]	Fryer-roaster turkeys [2]
	Toms	Hens		
	Number of associations			
Less than 1,000	1			
1,000 to 1,999	2	2		
2,000 to 2,999	4	1		
3,000 to 3,999	6	5		1
4,000 to 4,999	4	2	1	1
5,000 to 5,999	7	3		
6,000 to 6,999		4		1
7,000 to 7,999	1	6	3	1
8,000 to 8,999		1		3
9,000 to 9,999		1		3
Total	25	25	4	10

[1] Ready-to-cook weight basis.

[2] Capacities are listed only for associations that processed mature light breed or fryer-roaster turkeys.

Processing rates for heavy toms ranged from 7 to 10.5 cents a pound.

costs resulting from differences in labor rates, costs of materials and other services, and volume of turkeys processed.

Costs of processing ready-to-cook turkeys by 5 local cooperatives in 1955–56 averaged 6.679 cents per pound, and ranged from 6.061 cents to 7.229 cents (table 17).[13] Costs are broken down into three general categories—wages and salaries, plant costs (other than wages), and nonplant costs (other than salaries). The highest of these groups was plant costs, which accounted for 56 percent of the total. Wages and salaries made up 38 percent; the remaining 6 percent was nonplant or general and administrative costs.

The largest single cost item, 2.253 cents a pound for wages, was nearly 33 percent of the total cost. The cost of labor at the highest plant was 0.8 of a cent a pound more than at the lowest plant. The total cost for wages and salaries combined averaged 2.524 cents a pound.

Packaging supplies was the next highest cost item, averaging 1.887 cents a pound, or 28 percent of the total cost. Because of the relatively large volumes processed, depreciation of buildings and plant equipment, although a major expense, averaged only 0.366 cent per pound. The remaining plant costs amounted to 1.491 cents a pound. Plant costs included such items as power and light, water, fuel, plant supplies, maintenance and repair, and the cost of hauling live turkeys to the plant but did not include wages.

The five associations processed an average of nearly 6 million pounds with a range from about 3 million to 10 million pounds.

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[13] This does not include the cost of shrinkage from the live to ready-to-cook weight.

Rates Charged for Processing

Cooperatives which handle turkeys on a pool, consignment, or grower control basis, and those which custom process for producers charge or deduct specified amounts to cover the cost of processing. The charges often cover such other costs as hauling live turkeys to the plants and also deductions to accumulate capital for buildings, equipment, and other purposes. These charges do not include selling costs.

Average processing charges of 17 associations in 1955–56 are shown in tables 18 and 19. These tables show rates in two groups, those that include hauling live turkeys to plants and those that do not.

Table 18 shows that 13 associations which provided hauling charged an average of 8.5 cents a pound to process ready-to-cook heavy breed toms, 8.9 cents for heavy hens, and 9.3 cents for light breed and fryer turkeys. Rates at the 4 associations in which hauling charges were not included averaged 6.75 cents a pound for heavy toms, 7.6 cents for heavy hens, and 8.5 cents for fryers.

Processing rates varied considerably among associations. With hauling costs included, the rates at 13 associations ranged from 7 to 10.5 cents a pound for heavy breed

Table 17.—Average unit processing cost, ready-to-cook basis, of 5 local turkey cooperatives, 1955–56 [1]

Cost item	Average cost		Range in costs [2]	
	Per pound	Percent of total cost	Lowest	Highest
Wages and salaries:	*Cents*	*Percent*	*Cents per pound*	
Wages	[3] 2.253	[3] 32.9	2.003	2.805
Salaries	[3] .333	[3] 4.9	.244	.390
Total	2.524	37.8	2.264	3.195
Plant costs (not including wages):				
Packing supplies	1.887	28.3	1.636	2.125
Depreciation bldg. and plant equip	.366	5.5	.331	.417
All other plant costs [4]	1.491	22.3	1.038	1.701
Total plant costs	3.744	56.1	3.534	4.051
Other costs [5]	.411	6.1	.252	.697
Average and range of total costs	6.679	100.0	6.061	7.229

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[1] Includes cost of hauling live turkeys to plants and freezing cost. Does not include selling costs. The volume of turkeys processed at the 5 associations averaged 5,986,500 pounds and ranged between 3,100,000 and 10,373,000 pounds.

[2] The lowest and the highest cost association are shown for each cost item and the totals. Because of this, the individual cost items do not balance with the totals.

[3] Average of 4 associations. As such, these items do not balance with the totals of wages and salaries.

[4] Includes such items as power and light, water, fuel, plant supplies, trucking of live turkeys, and maintenance and repair.

[5] Includes such expenses as telephone and telegraph, auditing, annual meeting, and advertising.

Table 18.—Average rates charged for processing ready-to-cook turkeys at 17 associations, 1955–56 [1]

Size of turkeys	Average rate at 13 associations [2]	Average rate at 4 associations [3]	Difference
	Cents per pound		
Heavy breed toms	8. 5	6. 75	1. 75
Heavy breed hens	8. 9	7. 6	1. 3
Light breed and fryer turkeys [4]	9. 3	8. 5	. 8

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[1] Charges made for processing turkeys custom-processed for growers or handled on consignment, pool, or grower control basis. Based on ready-to-cook weight.

[2] Including charges for hauling live turkeys from farms to the plants.

[3] Not including charges for hauling live turkeys to the plants.

[4] Some associations did not process light breed or fryer turkeys.

toms; at the 4 associations with hauling costs not included, from 6.5 to 7.5 cents (table 19). When hauling costs were included, rates charged for heavy breed hens ranged between 8 and 10.5 cents a pound. Five plants charged 8 cents and 4, 9.5 cents a pound.

Table 19.—Rates for processing ready-to-cook turkeys at 17 associations 1955–56

Processing rate in cents per pound	Number of associations handling		
	Heavy breed toms	Heavy breed hens	Light breed and fryer turkeys
Farm to plant hauling included:			
7	1	------	----------
7.5	2	------	----------
8	4	5	1
8.5	2	1	2
9	------	1	3
9.5	2	4	1
10	1	1	1
10.5	1	1	2
Total	13	13	10
Farm to plant hauling not included:			
6.5	3	------	----------
7	------	------	----------
7.5	1	3	----------
8	------	1	----------
8.5	------	------	2
Total	4	4	2

The difference in charges is attributable primarily to the varying amounts withheld for capital purposes and to differences in operating costs. Numerous factors may affect costs, such as the differences in labor rates and man-hour output.

APPENDIX

APPENDIX

THIS appendix contains further information on changes in turkey production from 1930–56, with accompanying tables. It also includes information on changes in per capita consumption and a sample marketing agreement.

A number of factors have been responsible for changing the turkey industry from a sideline and minor farm operation to a $343 million a year industry, nationally.[1] The following have been particularly important:

1. Better control over disease, especially blackhead.
2. Development of commercial turkey egg production and hatching.
3. Greater availability of credit.
4. Generally favorable grower prices.
5. Increase in per capita consumption of turkeys.
6. Improvement in processing and marketing facilities.
7. Adoption of better farm management practices.
8. Development of new and improved breeds.
9. Improvement in turkey feeds and feeding efficiency.
10. Comparatively favorable prices to consumers.

Production

Turkey production in the United States increased 279 percent, or from 20.2 million to 76.7 million head, from the 1930–34 period to 1956 (appendix table 1). Number and percentage increases were relatively large in some regions and small in others, as follows:

Region	Increase in production	
	Thousands	*Percent*
West North Central	16, 147	299
Western	14, 554	321
South Atlantic	10, 861	572
East North Central	8, 511	566
North Atlantic	3, 643	392
South Central	2, 751	46
United States total	56, 467	279

The first 4 regions listed had large numerical increases and the last 2 relatively small ones. Percentage changes did not follow closely the same pattern. For instance, the volume increase in the West North Central region was almost twice that of the East North Central region, while the percentage increase of the latter was almost twice that of the former—566 compared with 299.

Production in the West North Central and Western regions quadrupled between 1930–34 and 1956. However, the change was relatively small in relation to total United States production. The West North Central region produced 26.7 percent of the crop during the 1930–34 period and 28.1 percent in 1956—an increase of only 1.4 percent (appendix table 2). The Western region increased 2.5 percent—from 22.4 to

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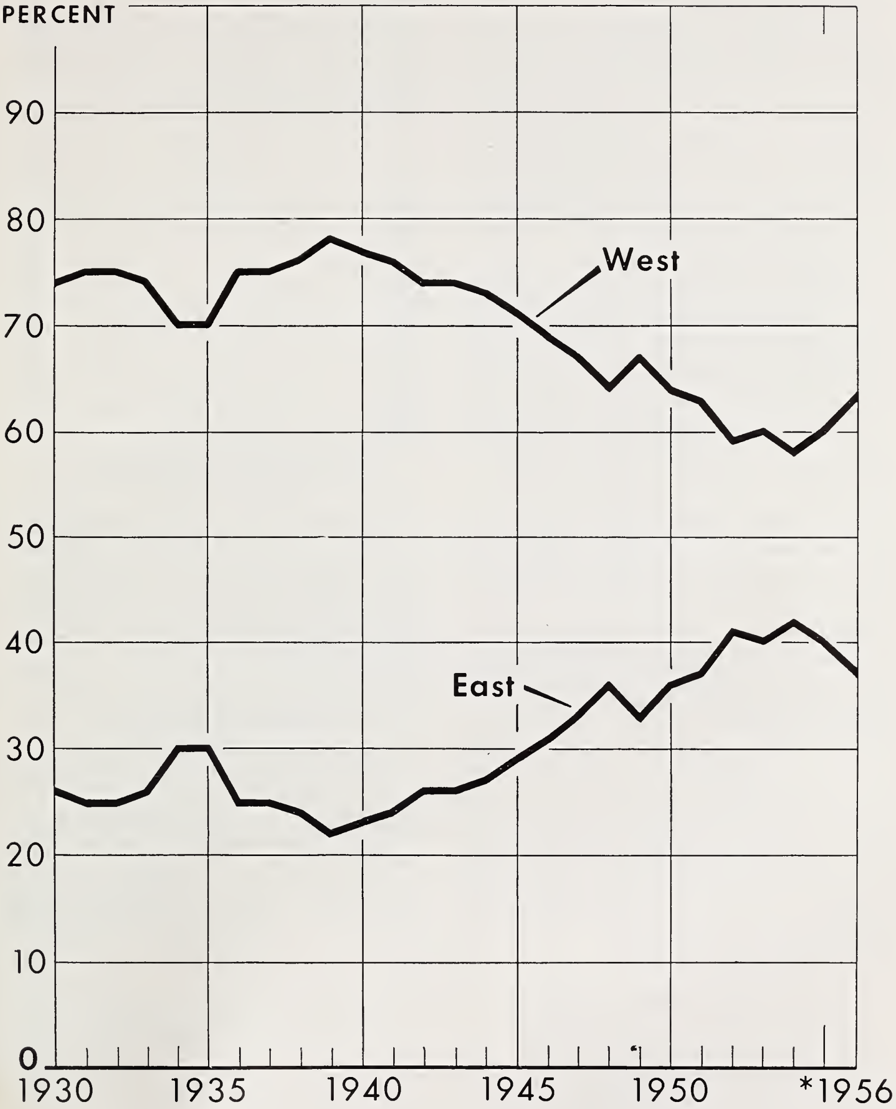
[1] UNITED STATES DEPARTMENT OF AGRICULTURE. FARM PRODUCTION, DISPOSITION, CASH RECEIPTS, AND GROSS INCOME. Agr. Mark. Serv., Pou. 3–1. March 1957.

Figure 9.—Percentages of turkeys produced east and west of the Mississippi River, 1930–56.



* FIGURES FOR 1956 ARE PRELIMINARY

24.9 percent. The percentage increases in these two heavy-producing regions only slightly exceeded that for the United States as a whole.

The South Central region had a substantial relative decrease in production. Although the number of turkeys produced remained about constant, the region's percentage of total United States production declined from 29.4 in 1930–34 to only 11.3 percent in 1956.

Production in each of the three eastern regions (East North Central, North Atlantic, and South Atlantic) increased both in number and in relation to United States production. In fact, the percentage increase in production in the eastern part was greater than in the western part of the United States.

In 1930, 74 percent of the turkeys were produced west of the Mississippi River and only 26 percent east of it (appendix table 7). By 1954, the eastern area jumped to 42 percent, leaving 58 percent in the West. In 1955 and 1956, however, production west of the Mississippi increased more, relatively, than that in the East and in 1956 represented 63 percent of the total production (fig. 9).

Appendix table 3 shows a large increase in average size of flocks for all regions except the South Central. Flocks averaged largest in the West North Central region with 864 turkeys. The Western and East North Central regions also had relatively large flocks, averaging, respectively, 718 and 693 turkeys per farm. In comparison, the average number of turkeys per farm in the South Central region was only 83.

Per Capita Consumption

Turkey consumption has increased greatly since 1930, when the rate was only 1.5 pounds per capita, ready-to-cook weight. By 1954 per capita consumption had risen to 5.3 pounds—3½ times the 1930 rate. A decrease in turkey production of about 2 million birds in 1955 caused a consumption drop of 0.3 pound per capita. In 1956, production advanced more than 11 million head, to 76.7 million but, due to a large carryover, the per capita consumption increased only 0.1 pound—to 5.1 pounds.

United States per capita consumption of turkeys, ready-to-cook weight, for specified years between 1930 and 1956, was as follows:

Year	*Pounds*
1930	1. 5
1935	1. 7
1940	2. 9
1945	3. 4
1950	4. 1
1951	4. 4
1952	4. 7
1953	4. 8
1954	5. 3
1955	5. 0
1956	5. 1

Marketing Agreement

The following turkey marketing agreement is used by one cooperative. The inclusion of the agreement in this report does not indicate its endorsement by Farmer Cooperative Service.

Copy of Agreement

It is hereby mutually agreed by and between __________________ association, hereinafter called Association, and ____________________
________________________________, hereinafter called Producer, this ____________ day of ____________, 19 ____, as follows:

1. The Articles of Incorporation, Bylaws and Rules and Regulations of the Association are incorporated herein and made a part hereof by reference, insofar as applicable.

2. Producer employs Association to haul, process, pack, store and sell turkeys in agreed and acceptable quantities, sales to be at times and prices in the discretion of Association, unless Producer retains the right to control such prices or times.

3. If Producer fails to meet his

commitment of turkeys, he shall, if required by Association, pay it 5 cents per pound for each turkey short of the commitment, poundage to be based on average live weight of turkeys of like age processed by Association, such sum to be paid as liquidated damages. This provision shall not apply when Producer is short of his commitment but has delivered to the Association all the birds raised by him. Producer further agrees that like liquidated damages shall be paid in the event he cancels a reserved date for processing, even though the number of birds available to be processed are in excess of his original commitment. Association agrees date may be canceled by Producer without penalty at least 7 days prior to the reserved date.

4. Association accepts such employment and agrees to haul, process, pack, store and sell such turkeys, within the limits of its available equipment and facilities, reserving the right to utilize other marketing, hauling, processing, and storing agencies.

5. Association may retain out of the proceeds of the sale of Producer's turkeys, or from advances made to him on his turkeys, such charge per pound of turkeys handled by Association for him as may be determined from time to time by Association's Board of Directors as being reasonably necessary to cover Association's services and expenses.

6. Producer shall, upon request, furnish Association at the close of each calendar quarter with a statement of the estimated number of turkeys to be processed by Association, together with a statement of a date or dates upon which the same shall be ready for processing, but Association shall not be required to meet such quantity or time requirements.

7. This agreement shall continue in full force and effect for a period of 1 year from the date hereof, and thereafter from year to year unless terminated by at least 10 days written notice from either party.

In witness whereof, this agreement has been executed the day and year first herein written.

____________________ Association
By ____________________________
By ____________________________

Producer ______________________
By ____________________________
By ____________________________

Appendix table 1.—Number of turkeys produced by regions, and number and pounds produced in the United States, 1930–56

Year	North Atlantic	East North Central	West North Central	South Atlantic	South Central	Western	United States	
							Number	Pounds
	1,000 head	*1,000 head*	*1,000 head*	*1,000 head*	*1,000 head*	*1,000 head*	*1,000 head*	*1,000*
1930	703	953	4, 222	1, 794	5, 294	4, 086	17, 052	228, 147
1931	764	1, 175	4, 365	1, 605	5, 612	4, 402	17, 923	243, 983
1932	950	1, 524	5, 791	1, 968	6, 919	4, 812	21, 964	302, 930
1933	1, 044	1, 853	6, 917	1, 997	6, 384	4, 618	22, 813	319, 259
1934	1, 181	2, 018	5, 706	2, 132	5, 538	4, 735	21, 310	299, 598
Average	928	1, 505	5, 400	1, 899	5, 949	4, 531	20, 212	278, 783
1935	1, 309	1, 811	5, 705	2, 044	4, 861	4, 757	20, 487	297, 961
1936	1, 525	2, 317	8, 382	2, 159	6, 484	6, 775	27, 642	405, 418
1937	1, 449	2, 063	7, 192	2, 078	6, 435	6, 174	25, 391	375, 828
1938	1, 563	2, 192	8, 424	1, 934	6, 029	6, 405	26, 547	395, 017
1939	1, 919	2, 604	11, 290	2, 112	6, 749	8, 527	33, 201	494, 019
Average	1, 553	2, 197	8, 199	2, 065	6, 112	6, 528	26, 654	393, 649
1940	1, 928	2, 829	11, 509	2, 161	6, 400	8, 489	33, 316	501, 916
1941	2, 044	2, 677	11, 106	2, 138	5, 423	8, 816	32, 204	512, 074
1942	2, 238	2, 882	10, 215	2, 348	5, 252	9, 129	32, 064	521, 534
1943	2, 280	2, 866	8, 893	2, 270	4, 774	10, 277	31, 360	509, 215
1944	2, 670	3, 518	9, 727	2, 597	4, 590	11, 598	34, 700	584, 010
Average	2, 232	2, 954	10, 290	2, 303	5, 288	9, 662	32, 729	525, 750

1945	3, 591	4, 609	11, 684	3, 279	5, 205	14, 102	42, 470	740, 462
1946	3, 466	4, 620	11, 801	3, 443	4, 692	11, 724	39, 746	714, 450
1947	3, 290	4, 289	9, 565	3, 087	3, 896	9, 566	33, 693	610, 737
1948	3, 269	3, 978	7, 701	3, 339	3, 222	9, 837	31, 346	573, 918
1949	3, 604	4, 810	10, 087	4, 583	4, 255	13, 680	41, 019	769, 351
Average	3, 444	4, 461	10, 168	3, 546	4, 254	11, 782	37, 655	681, 784
1950	3, 882	5, 347	11, 050	5, 494	4, 683	13, 077	43, 533	817, 482
1951	4, 289	6, 025	12, 227	8, 051	5, 381	16, 255	52, 228	949, 865
1952	5, 325	7, 099	12, 869	11, 543	6, 085	17, 729	60, 650	1, 049, 218
1953	4, 781	7, 246	13, 397	10, 147	5, 694	15, 671	56, 936	1, 007, 995
1954	5, 629	9, 000	17, 407	12, 512	6, 482	16, 477	67, 507	1, 160, 544
Average	4, 781	6, 943	13, 390	9, 550	5, 665	15, 842	56, 171	997, 021
1955	5, 072	8, 963	17, 312	11, 245	6, 338	16, 480	65, 410	1, 089, 723
1956 [1]	4, 571	10, 016	21, 547	12, 760	8, 700	19, 085	76, 679	1, 274, 626

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[1] Preliminary figures for 1956.

Appendix table 2.—Number of turkeys produced by regions as percentage of United States production, by years, 1930–56

Year	North Atlantic	East North Central	West North Central	South Atlantic	South Central	Western	United States
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
1930	4.1	5.6	24.8	10.5	31.0	24.0	100.0
1931	4.3	6.5	24.4	9.0	31.3	24.5	100.9
1932	4.3	6.9	26.4	9.0	31.5	21.9	100.0
1933	4.6	8.1	30.3	8.8	28.0	20.2	100.0
1934	5.5	9.5	26.8	10.0	26.0	22.2	100.0
Average	4.6	7.5	26.7	9.4	29.4	22.4	100.0
1935	6.4	8.8	27.9	10.0	23.7	23.2	100.0
1936	5.5	8.4	30.3	7.8	23.5	24.5	100.0
1937	5.7	8.1	28.3	8.2	25.4	24.3	100.0
1938	5.9	8.3	31.7	7.3	22.7	24.1	100.0
1939	5.8	7.8	34.0	6.4	20.3	25.7	100.0
Average	5.8	8.2	30.8	7.8	22.9	24.5	100.0
1940	5.8	8.5	34.5	6.5	19.2	25.5	100.0
1941	6.4	8.3	34.5	6.6	16.8	27.4	100.0
1942	7.0	9.0	31.8	7.3	16.4	28.5	100.0
1943	7.3	9.1	28.4	7.2	15.2	32.8	100.0
1944	7.7	10.2	28.0	7.5	13.2	33.4	100.0
Average	6.8	9.0	31.5	7.0	16.2	29.5	100.0
1945	8.5	10.8	27.5	7.7	12.3	33.2	100.0
1946	8.7	11.6	29.7	8.7	11.8	29.5	100.9
1947	9.8	12.7	28.4	9.1	11.6	28.4	100.0
1948	10.4	12.7	24.6	10.6	10.3	31.4	100.0
1949	8.8	11.7	24.6	11.2	10.4	33.3	100.0
Average	9.1	11.9	27.0	9.4	11.3	31.3	100.0
1950	8.9	12.3	25.4	12.6	10.8	30.0	100.0
1951	8.2	11.6	23.4	15.4	10.3	31.1	100.0
1952	8.8	11.7	21.2	19.0	10.0	29.3	100.0
1953	8.4	12.7	23.4	17.8	10.0	27.5	100.0
1954	8.4	13.3	25.8	18.5	9.6	24.4	100.0
Average	8.5	12.4	23.8	17.0	10.1	28.2	100.0
1955	7.7	13.7	26.5	17.2	9.7	25.2	100.0
1956 [1]	6.0	13.1	28.1	16.6	11.3	24.9	100.0

[1] Preliminary figures for 1956.

Appendix table 3.—Number of farms reporting turkeys raised and average number raised per farm by geographic divisions, selected years 1929–54

Year	North Atlantic	East North Central	West North Central	South Atlantic	South Central	Western	United States
			Farms reporting turkeys raised [1]				
1929	28, 137	47, 522	135, 595	98, 414	237, 322	90, 823	637, 843
1939	13, 499	29, 174	132, 086	41, 842	134, 470	38, 281	389, 352
1944	10, 706	14, 315	39, 663	28, 872	68, 990	30, 994	193, 540
1949	12, 267	14, 228	18, 921	27, 972	65, 326	23, 530	162, 244
1954	11, 566	11, 878	18, 590	33, 220	72, 410	22, 143	169, 807
			Turkeys raised per farm [2]				
1929	17	19	31	15	23	48	26
1939	113	70	74	41	41	192	72
1944	201	183	190	70	39	328	141
1949	272	275	461	144	53	552	225
1954	448	693	864	341	83	718	370

[1] U. S. Census of Agriculture.

[2] Calculated from Census figures.

Appendix table 4.—Number of cooperatives handling turkeys, by States and geographic regions, 1936–56

State and Geographic region	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
										Number											
Maine	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	1	1
Massachusetts	---	---	---	---	---	---	---	--	--	--	1	1	1	1	1	1	1	1	1	1	1
Connecticut	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	1
New Jersey	3	3	3	3	3	3	3	3	3	3	3	2	2	1	1	1	1	1	1	1	1
Pennsylvania	---	---	---	---	---	---	---	--	--	--	--	--	1	1	1	1	2	2	2	1	1
North Atlantic	4	4	4	4	4	4	4	4	4	4	6	5	6	5	5	5	6	6	6	6	5
Ohio	---	---	---	---	---	---	---	1	1	2	3	3	3	2	2	1	1	1	1	1	1
Illinois	---	---	---	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Michigan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1
Wisconsin	---	---	---	---	---	---	---	--	--	--	--	--	1	2	2	2	2	2	2	2	2
East North Central	1	1	1	2	2	2	2	3	3	4	5	5	6	6	6	5	5	5	6	5	5
Minnesota	12	12	12	13	15	16	16	16	16	15	15	16	15	14	14	13	12	8	5	4	5
Iowa	1	2	2	2	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1
Missouri	5	5	5	5	5	5	5	5	5	4	4	4	5	5	5	5	5	5	5	2	2
North Dakota	7	7	7	7	8	9	10	9	9	8	8	6	6	3	2	2	1	1	1	1	---
South Dakota	2	1	1	1	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--	--	---
Nebraska	8	9	8	8	8	8	6	4	4	4	3	3	2	2	2	2	1	1	1	1	1
Kansas	5	3	2	2	2	2	3	3	2	1	1	1	--	1	--	--	--	--	--	--	---
West North Central	40	39	37	38	40	42	42	38	37	34	33	32	30	27	25	24	21	16	13	9	9
Maryland	---	---	---	---	---	---	---	--	--	2	2	2	--	--	--	--	--	--	--	--	---
Virginia	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
North Carolina	---	---	---	---	---	---	---	--	1	1	1	1	1	1	1	1	1	1	1	1	1
South Atlantic	1	1	1	1	2	2	1	1	2	4	4	4	2	2	2	2	2	2	2	2	2

Tennessee	1	1	1	1	1	1	1	1	--	--	--	--	--	--	--	--	--	--	--	--	---
Mississippi	---	---	---	---	---	---	3	3	3	3	3	2	2	--	--	--	--	--	--	--	---
Oklahoma	2	4	3	1	1	1	1	1	1	1	1	1	--	--	--	--	--	--	--	--	---
Texas	6	7	6	5	4	4	3	2	1	1	1	1	1	1	1	1	1	1	--	--	---
South Central	9	12	10	7	6	6	8	7	5	5	5	4	3	1	1	1	1	1	--	--	---
Montana	22	20	17	18	15	15	14	13	11	8	3	2	1	1	1	1	--	--	--	--	---
Idaho	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	--	---
Wyoming	9	7	6	5	5	4	4	4	4	4	4	3	2	1	--	--	--	--	--	--	---
Colorado	13	10	10	10	10	10	10	10	10	9	8	8	4	7	6	2	2	2	1	1	1
Arizona	1	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--	---
Utah	1	1	1	1	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2
Nevada	5	5	5	4	3	3	2	2	2	2	1	1	1	1	1	1	--	--	--	--	---
Washington	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Oregon	4	4	4	4	3	2	2	2	2	2	2	3	3	3	2	2	1	1	1	1	1
California	3	3	5	6	6	6	6	7	7	7	7	8	8	7	8	9	10	6	5	4	4
Western	60	52	50	50	46	44	43	43	41	37	30	30	24	25	23	20	18	14	12	9	9
United States	115	109	103	102	100	100	100	96	92	88	83	80	71	66	62	57	53	44	39	31	30

Appendix table 5.—Volume of turkeys handled by farmer cooperatives, by States and geographic regions, 1936–56[1]

State and geographic region	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
					Thousand pounds					
Maine	------	------	------	------	------	------	------	------	------	------
Massachusetts	------	------	------	------	------	------	------	------	------	------
Connecticut	11	7	15	9	3	15	8	9	6	7
New Jersey	75	69	65	68	82	78	72	83	88	84
Pennsylvania	------	------	------	------	------	------	------	------	------	------
North Atlantic	86	76	80	77	85	93	80	92	94	91
Ohio	------	------	------	------	------	------	------	13	13	26
Illinois	------	------	------	254	509	564	677	651	416	833
Michigan	4	11	20	43	60	53	121	29	35	113
Wisconsin	------	------	------	------	------	------	------	------	------	------
East North Central	4	11	20	297	569	617	798	693	464	972
Minnesota	5, 618	4, 629	3, 792	5, 292	7, 833	9, 688	11, 082	8, 558	10, 259	11, 790
Iowa	218	319	425	940	471	395	440	360	495	2, 150
Missouri	1, 537	1, 218	1, 061	1, 300	1, 760	1, 500	1, 162	592	649	877
North Dakota	2, 031	1, 479	1, 975	1, 796	877	770	794	813	937	966
South Dakota	186	13	13	37	39	39	8	------	------	------
Nebraska	915	756	847	1, 508	1, 216	1, 414	1, 718	1, 871	2, 071	2, 493
Kansas	730	116	104	240	233	396	395	377	224	220
West North Central	11, 235	8, 530	8, 217	11, 113	12, 429	14, 202	15, 599	12, 571	14, 635	18, 496
Maryland	------	------	------	------	------	------	------	------	------	162
Virginia	70	43	22	20	408	501	900	1, 399	1, 574	3, 042
North Carolina	------	------	------	------	------	------	------	------	29	49
South Atlantic	70	43	22	20	408	501	900	1, 399	1, 603	3, 253

Tennessee	320	174	217	305	174	131	96	112	------	------
Mississippi	------	------	------	------	------	------	147	77	76	32
Oklahoma	87	176	60	43	44	43	65	43	52	44
Texas	890	775	934	1, 057	1, 161	1, 135	866	783	891	1, 419
South Central	1, 297	1, 125	1, 211	1, 405	1, 379	1, 309	1, 174	1, 015	1, 019	1, 495
Montana	955	319	238	482	324	326	354	221	152	224
Idaho	561	503	314	381	676	462	393	282	426	669
Wyoming	699	477	384	419	273	200	276	182	79	111
Colorado	3, 153	2, 641	2, 202	2, 892	3, 873	3, 851	4, 747	4, 083	3, 695	4, 400
Arizona	121	------	------	------	------	------	------	------	------	------
Utah	5, 097	2, 182	925	1, 115	1, 690	2, 240	3, 965	7, 987	12, 138	15, 937
Nevada	518	293	180	208	189	149	95	113	138	129
Washington	1, 781	2, 192	1, 676	2, 366	3, 492	3, 244	4, 081	4, 807	8, 211	11, 324
Oregon	3, 561	1, 965	2, 172	2, 275	2, 564	2, 053	2, 124	2, 577	3, 299	5, 025
California	5, 621	5, 428	6, 192	8, 032	8, 787	9, 257	8, 650	9, 993	13, 323	16, 631
Western	22, 067	16, 000	14, 283	18, 170	21, 868	21, 782	24, 685	30, 245	41, 461	54, 450
United States	34, 759	25, 785	23, 833	31, 082	36, 738	38, 504	43, 236	46, 015	59, 276	78, 757

See end of table for footnote reference.

Table continued on following page.

Appendix table 5.—Volume of turkeys handled by farmer cooperatives, by States and geographic regions, 1936–56[1]

State and geographic region	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
						Thousand pounds					
Maine	------	------	------	------	------	------	------	------	------	261	378
Massachusetts	60	122	164	187	210	214	251	243	196	180	161
Connecticut	9	82	53	85	59	66	127	89	117	95	32
New Jersey	82	17	20	24	33	30	29	35	42	34	38
Pennsylvania	------	------	12	223	360	570	1, 550	1, 529	1, 683	1, 012	1, 022
North Atlantic	151	221	249	519	662	880	1, 957	1, 896	2, 038	1, 582	1, 631
Ohio	506	453	532	803	825	594	917	2, 039	2, 556	1, 218	1, 359
Illinois	908	911	824	719	817	1, 088	652	868	645	1, 332	2, 009
Michigan	213	68	87	52	18	44	30	20	1, 740	1, 878	2, 286
Wisconsin	------	------	1, 070	2, 631	2, 150	3, 461	5, 296	7, 413	11, 176	11, 164	14, 172
East North Central	1, 627	1, 432	2, 513	4, 205	3, 810	5, 187	6, 895	10, 340	16, 117	15, 592	19, 826
Minnesota	14, 101	17, 668	10, 511	21, 258	18, 591	16, 304	18, 346	22, 400	29, 541	30, 275	39, 893
Iowa	3, 506	2, 495	2, 097	2, 810	2, 483	2, 798	3, 075	3, 032	3, 218	5, 404	7, 433
Missouri	1, 564	1, 456	863	1, 353	957	1, 463	1, 222	1, 090	1, 520	1, 526	1, 884
North Dakota	796	564	333	203	158	147	67	40	39	8	------
South Dakota	------	------	------	------	------	------	------	------	------	------	------
Nebraska	2, 559	2, 321	1, 758	2, 271	2, 088	1, 907	1, 076	2, 626	2, 871	3, 100	5, 746
Kansas	184	86	------	62	------	------	------	------	------	------	------
West North Central	22, 710	24, 590	15, 562	27, 957	24, 277	22, 619	23, 786	29, 188	37, 189	40, 313	54, 956
Maryland	381	407	------	------	------	------	------	------	------	------	------
Virginia	3, 766	2, 694	2, 861	5, 069	6, 890	7, 845	11, 336	6, 234	9, 177	7, 215	9, 836
North Carolina	88	61	75	100	150	206	160	180	203	210	176
South Atlantic	4, 235	3, 162	2, 936	5, 169	7, 040	8, 051	11, 496	6, 414	9, 380	7, 425	10, 012

Tennessee	------	------	------	------	------	------	------	------	------	------	------
Mississippi	29	8	10	------	------	------	------	------	------	------	------
Oklahoma	35	26	------	------	------	------	------	------	------	------	------
Texas	900	538	222	174	156	131	152	131	------	------	------
South Central	964	572	232	174	156	131	152	131	------	------	------
Montana	237	105	3	59	87	87	------	------	------	------	------
Idaho	785	374	391	395	224	214	324	50	5	------	------
Wyoming	123	38	33	35	------	------	------	------	------	------	------
Colorado	3, 485	1, 636	877	2, 517	2, 967	2, 009	2, 482	2, 582	4, 124	3, 753	6, 192
Arizona	------	------	------	------	------	------	------	------	------	------	------
Utah	12, 432	11, 203	9, 724	14, 886	13, 218	14, 925	14, 905	15, 409	17, 355	18, 859	21, 570
Nevada	74	88	158	107	88	95	------	------	------	------	------
Washington	10, 875	8, 302	5, 664	6, 896	5, 579	7, 259	7, 146	5, 215	5, 502	5, 163	4, 900
Oregon	3, 393	4, 898	5, 138	5, 072	5, 634	5, 151	5, 416	1, 608	4, 636	5, 271	5, 917
California	13, 911	13, 228	12, 165	13, 764	17, 010	16, 506	17, 788	15, 345	8, 662	18, 461	28, 950
Western	45, 315	39, 872	34, 153	43, 731	44, 807	46, 246	48, 061	40, 209	40, 284	51, 507	67, 529
United States	75, 002	69, 849	55, 645	81, 755	80, 752	83, 114	92, 347	88, 178	105, 008	116, 419	153, 954

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[1] Ready-to-cook weight.

Appendix table 6.—Percentage of turkeys handled by cooperatives, by states and geographic regions, 1936–56[1]

State and geographic region	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	[3]1956
	Percent																				
Maine	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	9	21
Massachusetts	--	--	--	--	--	--	--	--	--	--	1	2	3	3	4	3	3	3	3	2	2
Connecticut	1	1	1	1	(2)	1	(2)	1	(2)	(2)	(2)	3	2	3	2	2	3	2	3	3	1
New Jersey	5	5	5	4	5	5	4	4	3	2	2	(2)	1	1	1	1	1	1	1	1	1
Pennsylvania	--	--	--	--	--	--	--	--	--	--	--	--	(2)	1	1	2	5	6	5	4	4
North Atlantic	1	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	1	1	1	1	3	3	3	2	3
Ohio	--	--	--	--	--	--	--	(2)	(2)	(2)	3	3	4	5	5	3	4	7	7	3	3
Illinois	--	--	--	5	7	8	9	10	5	7	7	7	7	6	6	8	5	7	4	10	11
Michigan	(2)	(2)	(2)	1	1	1	2	(2)	(2)	1	2	1	1	(2)	(2)	(2)	(2)	(2)	10	14	16
Wisconsin	--	--	--	--	--	--	--	--	--	--	--	--	12	22	15	20	28	40	48	39	52
East North Central	(2)	(2)	(2)	1	2	2	2	2	1	2	3	2	5	6	5	6	7	10	13	14	16
Minnesota	22	22	16	17	23	26	27	25	25	23	24	34	26	39	30	24	24	32	31	30	36
Iowa	1	2	3	5	2	2	2	2	1	5	8	7	7	7	5	6	6	6	5	8	9
Missouri	13	11	9	9	9	8	7	4	3	4	6	7	4	6	4	5	4	4	5	4	4
North Dakota	12	13	16	12	5	5	6	9	10	10	8	7	8	3	2	2	1	1	1	(2)	---
South Dakota	2	(2)	(2)	(2)	(2)	(2)	(2)	--	--	--	--	--	--	--	--	--	--	--	--	--	---
Nebraska	14	14	13	17	9	12	14	18	19	18	20	18	18	20	18	15	8	20	21	26	40
Kansas	11	2	1	2	2	3	3	4	2	2	2	1	--	1	--	--	--	--	--	--	---
West North Central	12	11	9	10	9	11	12	11	11	12	13	17	14	19	15	12	12	16	16	17	20
Maryland	--	--	--	--	--	--	--	--	--	3	6	7	--	--	--	--	--	--	--	--	---
Virginia	9	1	(2)	(2)	5	5	8	14	13	20	22	17	19	25	28	25	20	13	16	14	16
North Carolina	--	--	--	--	--	--	--	--	1	1	2	1	2	2	2	2	1	1	1	1	1
South Atlantic	3	(2)	(2)	(2)	2	2	3	5	5	8	10	8	7	9	10	9	10	6	7	7	7

Tennessee	13	7	12	18	9	6	6	6	--	--	--	--	--	--	--	--	--	--	--	--	---
Mississippi	--	--	--	--	--	--	11	7	8	3	4	1	1	--	--	--	--	--	--	--	---
Oklahoma	1	1	(2)	(2)	(2)	(2)	1	(2)	1	1	(2)	(2)	--	--	--	--	--	--	--	--	---
Texas	2	2	2	3	3	3	2	2	2	3	2	2	1	(2)	(2)	(2)	(2)	(2)	--	--	---
South Central	2	2	2	2	2	2	2	2	2	2	2	1	1	(2)	(2)	(2)	(2)	(2)	--	--	---
Montana	26	12	10	19	12	14	15	11	8	13	12	7	(2)	4	6	6	--	--	--	--	---
Idaho	21	21	13	14	26	15	11	9	11	13	26	14	21	12	6	7	17	3	(2)	--	---
Wyoming	20	17	18	17	12	10	14	10	5	5	6	2	2	2	--	--	--	--	--	--	---
Colorado	46	33	28	26	33	40	40	38	31	36	28	16	11	23	28	19	25	26	30	29	36
Arizona	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	---
Utah	64	34	16	11	16	17	24	62	52	54	44	54	48	44	47	47	49	60	52	51	56
Nevada	53	38	32	37	33	31	25	25	24	20	12	16	35	27	24	32	--	--	--	--	---
Washington	42	46	31	30	30	26	28	31	43	50	50	46	35	42	39	47	49	41	40	42	44
Oregon	28	13	12	10	11	9	8	9	10	12	10	17	24	18	18	15	16	6	20	25	29
California	19	18	21	23	19	20	17	19	20	20	15	19	17	12	15	12	11	10	6	12	16
Western	30	22	19	19	19	19	19	23	25	27	23	25	24	21	21	20	18	17	17	22	25
United States	12	9	8	9	9	10	11	12	13	14	13	14	13	14	13	11	11	11	12	14	16

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[1] Based on total pounds of turkeys sold in respective geographic regions and States, ready-to-cook weight. Total live weights sold were converted to ready-to-cook weights by using a shrinkage of 21.7 percent.

[2] Less than one-half of 1 percent.

[3] Figures for 1956 are preliminary.

Appendix table 7.—Number and percentage of turkeys produced east and west of Mississippi River, 1930–56

Year	Number produced			Percentage produced	
	East of Mississippi River	West of Mississippi River	Total	East of Mississippi River	West of Mississippi River
		Thousands			*Percent*
1930	4, 364	12, 688	17, 052	26	74
1931	4, 410	13, 513	17, 923	25	75
1932	5, 481	16, 483	21, 964	25	75
1933	6, 028	16, 785	22, 813	26	74
1934	6, 449	14, 861	21, 310	30	70
1935	6, 101	14, 386	20, 487	30	70
1936	6, 976	20, 666	27, 642	25	75
1937	6, 423	18, 968	25, 391	25	75
1938	6, 370	20, 177	26, 547	24	76
1939	7, 288	25, 391	33, 201	22	78
1940	7, 631	25, 685	33, 316	23	77
1941	7, 591	24, 613	32, 204	24	76
1942	8, 194	23, 870	32, 064	26	74
1943	8, 083	23, 277	31, 360	26	74
1944	9, 381	25, 319	34, 700	27	73
1945	12, 146	30, 324	42, 470	29	71
1946	12, 181	27, 565	39, 746	31	69
1947	11, 224	22, 469	33, 693	33	67
1948	11, 166	20, 180	31, 346	36	64
1949	13, 698	27, 321	41, 019	33	67
1950	15, 473	28, 060	43, 533	36	64
1951	19, 258	32, 970	52, 228	37	63
1952	25, 021	35, 629	60, 650	41	59
1953	23, 043	33, 893	56, 936	40	60
1954	28, 232	39, 275	67, 507	42	58
1955	26, 230	39, 180	65, 410	40	60
1956 [1]	28, 346	48, 333	76, 679	37	63

[1] Preliminary figures for 1956.

Other Publications Available

Farmer Cooperatives in the United States. FCS Bulletin 1.

The Story of Farmer Cooperatives. FCS Educational Circular 1.

Three Principles of Agricultural Cooperation. Circular E–24, *Ward W. Fetrow.*

Sizing Up Your Cooperative. FCS Educational Circular 11.

Poultry and Egg Cooperatives Vary Widely. FCS Bulletin Reprint 1, *John J. Scanlan.*

Using Your Poultry and Egg Cooperative. FCS Educational Circular 9.

Operating Costs of 15 Cooperative Poultry Dressing Plants. FCS Bulletin 4. *Ralph A. Eastwood and John J. Scanlan.*

Cooperative Marketing of Eggs and Poultry in Ohio. Bulletin 59. *Harry E. Ratcliffe.*

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